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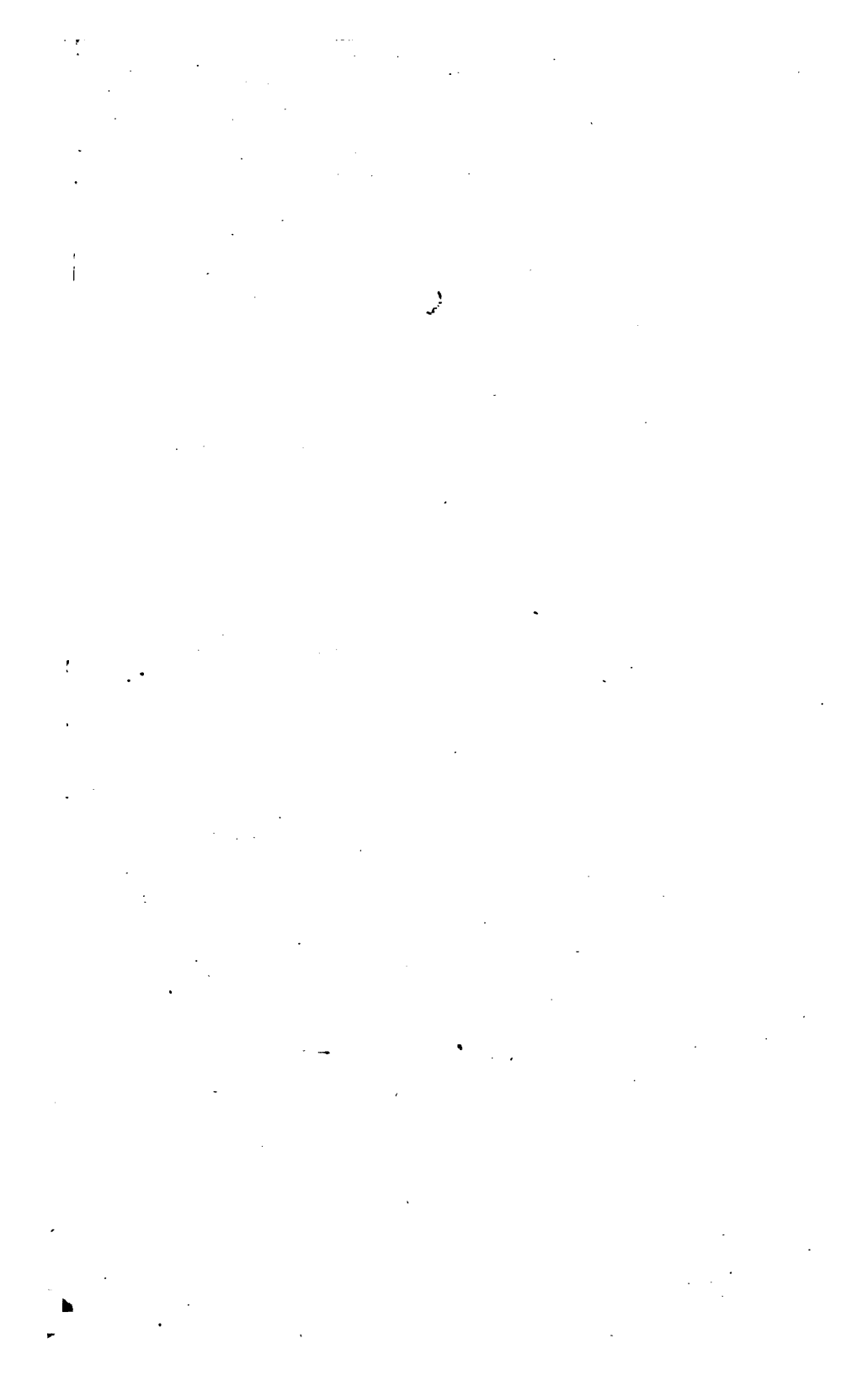
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Allen's John Bull.

Pubd. by E. W. Son Royal Exchange 1st June 1883.

W. A. Co. 10th. 2. Gracechurch St.

**HISTORY AND DESCRIPTION
OF THE DIFFERENT VARIETIES**

OF THE

PANSEY,

OR

HEARTSEASE,

NOW IN CULTIVATION

IN THE BRITISH GARDENS;

ILLUSTRATED WITH

TWENTY-FOUR COLOURED FIGURES,

OF THE CHOICEST SORTS.

BY J. SINCLAIR, & J. FREEMAN.

**"Go mark the matchless workings of that Power
That shuts within the seed the future flower;
Bids these in elegance of form excel;
In colour these, and those delight the smell.
Sends Nature forth, the daughter of the skies,
To dance on earth, and charm all human eyes."**—*Cowper*.

LONDON:

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1835.

SB

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S62

To
Mrs Lawrence,
Of Drayton Green, Midd.^x
This Work
Is most respectfully Dedicated
by her Obedient Servants.

J. Sinclair &
J. Freeman.

1st July, 1835.

Botany
Wheeler
3.2.43
46173

7-7-49. H. R. L.

INTRODUCTION.

THE object of the following work is to bring into notice all the choice and leading varieties of HEARTSEASE now in cultivation. Such has been the rapid increase of the Pansey tribe within the last few years that there are now among the London Florists and Nurserymen upwards of 400 named sorts, of almost every conceivable colour : yet there has never been any publication wholly devoted to the Heartsease. A few specimens of the flower beautifully executed have appeared in the *Florist's Register*, by Mr. Wakeling ; but as that periodical is not confined to any one genus alone, a work wholly devoted to Pansies is still considered a desideratum.

Although there have been so many distinct varieties of the Pansey raised of late years, the number of choice sorts fit to please the eye of the Florist or Amateur is yet but limited. The subjects chosen to illustrate this work are those only which are considered really good, and form the first class of show flowers. The work is to be continued monthly, and will be completed in twenty-four numbers. Each number is to contain one variety, faithfully drawn and coloured from nature, with a full description of each figure, accompanied with their various modes of propagation, soil, and situation, with every other particular which may be calculated to promote the growth and culture of the Heartsease. It may be necessary to state, that no care or attention will be wanting on the part of the Authors, in select-

ing the choicest sorts, or in executing the drawings ; and, considering the perfection to which Lithography has of late years attained, they also feel confident of getting the work up in such a manner as will neither do injustice to the flowers themselves, nor to those Florists and Amateurs to whom the world is indebted for the raising of so many rare and beautiful sorts.

Amongst all the beauties of the flower garden that attract the attention of the florist, the Pansey may be considered one of the most striking, as it continues to bloom forth in prostrate beauty and glowing luxuriance the greater part of the year. Although humble in growth, and low in stature, it possesses qualities that transcend many of the more exalted species of the Vegetable kingdom. In the words of the poet it even continues to peer forth, beneath the icy hand of winter,

“ Like modest worth, in life’s low vale,
Striving against misfortune’s gale ;
Having each opening blossom pale,
Spread ’midst the storm,
That often does in wrath assail,
Each slender form.”

Of late years the growth of the Pansey has become a favorite study throughout the British gardens, and through the attention that has been paid to its culture, each successive season brings an endless profusion of beautiful large blooms, entirely new and distinct—varieties that only seven years ago, would have been looked on with wonder and astonishment. We may therefore conclude from the varieties that have been lately produced, that ere long their numbers will be increased to many hundreds.

The Pansey may be seen to the best advantage in the months of May and June, as then its colours are brighter and more perfect than later in the season. But by surveying a

bed of choice sorts, at almost any time of the year, they at once recommend themselves to the eye by the profusion of their flowers, and the beauty and brilliancy of their colours, which are of the richest possible hue, and of an endless variety. The prevailing colours of the Pansey are yellow, blue, purple, light and dark, with a variety of others beautifully blended together, bordering on almost every hue and tint imaginable. Of the Pansey we may justly with the poet, Thompson, say,

"Soft roll your incense, herbs, and fruits, and flowers,
In mingled clouds to Him, whose sun exalts,
Whose breath perfumes you, and whose pencil paints."

J. S.

*An Explanation of the Terms used in the Description of
the Pansey, or Heartsease.*

Approximate, near together.

Anterior, growing in front of some other thing.

Aridity, dryness.

Annual, of one year's duration.

Appendages, things added to others.

Areolæ, little spaces, or areas, on the surface of any thing.

Albumen, the substance under the inner coat of the testa
of seeds.

Axis, the axis of a spike of flowers is the stem to which
they are attached.

Appressed, when the hairs are flat upon the surface of a
leaf, &c.

Abortion, an imperfect developement.

Axillary, placed in the axils.

Acute, having sharp angles.

Angular, forming angles.

Anther, the male parts of a flower, containing the pollen.

Æstivation, the flower before expansion.

Bractæas, small leaves placed near the calyx.

Bearded, having long hair like a beard.

Crustaceous, having a hard brittle crust.

Connate, joined together at the base.

Coarctate, pressed together.

Calyx, the outer envelope of a flower.

Convolute, rolled together.

Chinks, longitudinal fissures.

Cell, the hollow part of a capsule where the seeds are lodged.

Capsule, a dry fruit.

Caruncle, a small protuberance.

Cordate, heart shaped.

Crenate, having round notches.

Claw, the narrow end of the petal.

Concave, hollow.

Carinate, keel shaped.

Cotyledons, seed leaves.

Caulescent, having a kind of stem.

Cuneiform, wedge shaped.

Cylindrical, cylinder shaped.

Dilated, widened.

Disk, the fleshy annular process that surrounds the ovary in many flowers.

Declinate, bending downwards.

Diffuse, scattered, widely spread.

Denticulate, toothed.

Embryo, the young plant in the seed.

Filiform, like a thread in form.

Fusiform, spindle shaped.

Glandular, having glands.

Hilum, the scar or mark on the seed which indicates the place by which it adheres to the placenta.

Hypogynous, situated below the ovarium.

Hybrid, a mule, partaking of the nature of two species.

Hirtus, hairy,

Inferior, any thing placed below the ovary is so called.

Imbricate, laid over each other like tiles

Involute, rolled inwards.

Labellam, the lower petal, the lip.

Lobe, the divisions, or lobes.

Lyrate, shaped like a lyre.

Marcescent, not falling off when withered.

Membranous, having the texture of a membrane.

Monadelphous, having the filaments cohering into a tube.

Nerves, the veins upon leaves or flowers.

Nectarium, the part of a flower that produces the honey.

Ovary, the part of a flower in which the young seeds are contained.

Orbicular, circular.

Ovate, oval.

Obtuse, blunt.

Petals, the corolla, or flower leaves.

Placenta, that part of the capsule to which the seeds are attached.

Perforated, appearing full of holes.

Plumule, the centre bud between the cotyledons.

Pedunculate, having stalks or peduncles.

Pedicle, small footstalks of flowers.

Palmatifid, divided so as to resemble a hand.

Primordial, usually applied to the first leaves.

Pinnatifid, leaves divided from the margin nearly to the middle rib.

Parietal, being attached to the walls or sides of the ovary.

Radicle, the root of an embryo.

Recurved, curved backwards.

Runcinate, applied to the leaves when the lobes are irregular.

Radiating, like the rays of a star.

Style, the part between the ovary and the stigma.

Stamens, the male organs of a flower.

Sepals, the divisions of the calyx.

Stigma, the female organ of a flower.

Striæ, small streaks.

Scrobiculate, excavated into little pits or hollows.

Stipulas, uncertain leaves, usually one on each side.

Seminal, of, or belonging to, the seed.

Terminal, ending, or at the top of any thing.

Testa, the skin, or integument of a seed.

Torus, the same as thalamus.

Thalamus, that part of a flower which rises below the ovarium,

Terete, like a taper, round and long.

Urceolus, when the filaments are joined into a pitcher shaped body.

Umbilicus, the cord which attaches the seed to the placenta.

Undulatus, waved, when the margins of leaves or petals are larger in proportion than their disks.

Unguis, a claw; the claw of a petal by which it is attached to the receptacle.

Valves, the divisions of a capsule

Venosus, full of veins or nerves.

HISTORY

OF THE

PANSEY, &c.

Violarieæ. D. C. fl. fran. 4 p. 801. Juss. Annu. du mus.
18. p. 4. p. 476. *G. D. S. B. 316.*

CALYX, of five permanent sepals, equal or unequal, usually with membranous margins, free, or connected at the base, imbricate in the bud, and, therefore, they are disposed in a double series, as in tribe *Violeæ*, three in the outer series, and two in the inner. Petals 5, alternating with the sepals hypogynous, inserted in the thalamas, usually marcescent, and obliquely convolute in the bud, sometimes equal, sometimes unequal; but when they are unequal, the lower one is in the form of a labellum, furnished with a spur, or hollow at its base. Sometimes there is a stamiferous urceolus, and sometimes filiform appendages, between the petals and the stamens. Stamens 5, inserted in the thalamus, or calyx, alternating with the petals; anthers, two-celled, opening inwards by longitudinal chinks; these are appressed to the ovary, usually free, but sometimes they are more or less connate at the base, into a monodelphous disk; filaments usually dilated, sometimes from the base in this case, bearing the anthers at the very base, sometimes they are unguiculated at the base, but they are

dilated at the top, and, therefore, the anthers are a little higher up at the tops of the claws, in either case, the filaments are drawn out beyond the anthers, into an arid membrane, more or less imbricately girding the style, rarely awl shaped, but never terminated by the anthers; two of which, in the irregular flowers, are usually drawn downwards into a filiform appendage, or nectarial glands, which are drawn in within the spur, or hollow. Ovarys, 1-celled, many seeded, or rarely one seeded from abortion. Placentas 3, parietal, one in the middle of each valve, opposite the exterior petals. Style 1, permanent, usually declinate, perforated, and recurved at the top, therefore the stigma is somewhat lateral. Capsule, 3-valved, the valves generally opening from the apex to the base, usually with elasticity.

The seeds have three coverings, the outer one is membranous, and more or less thickened at the hilum into a caruncle; umbilical vessel united with the epidermis from the hilum to the vertex of the seed, forming a line which is hardly prominent, expanding into a wrinkled areola at the top.

Testa, crustaceous, brittle, usually smooth, but sometimes striated, rarely scrobiculate; inner membrane very thin, adhering, usually dotted with brown in the vertex.

Albumen, fleshy.

Embryo, straight in the axis of the albumen, with the raticle towards the base of the seed, not towards the hilum, with an inconspicuous plumule, and usually flat cotyledons.

HERBS, sub. shrubs, or middle sized shrubs, with alternate, rarely opposite leaves, simple, usually involute before expansion, all furnished with stipulas.

FLOWERS, erect or drooping, pedunculate, axillary; peduncles sometimes solitary or numerous. 1. Flowered

and bracteolate ; sometimes branched with the pedicels.
1. Flowered, and bibracteolate, rising singly from the axillæ of the bracteas.

VIOLA, is derived from the Greek *ῥοσά* a violet. (The ancients feigned that violets were the first food of the cow ; Io, one of Jupiter's mistresses*.)

L. Class and Order.

PENTANDRIA MONOGYNIA.

N. Order.

VIOLARIEÆ.

GENERIC CHARACTER. Sepals unequal, all, more or less, drawn out downwards into ear-like appendages, (produced from the dilatation of the nerves,) erect after flowering. Petals unequal, convolute in æstivation, with three nerved claws, the lower one drawn out downwards, more or less, into a hollow spur. Stamens approximate or coarctate (not joined) inserted on the top of the teeth of a pentagonal, five toothed torus. Filaments dilated at the base, oblong, or triangular, bearing the anthers low down ; lobes of anthers spreading at the base, the two anterior stamens bearing on their back two nectariferous filiform appendages, of various shapes, which are drawn in within the spur. Ovary sometimes superior, sometimes girded round at the base, by a concave torus ; and, therefore, in this case, appears half inferior. Valves of capsule elastic, contracting at maturity, and ejecting the seeds. Seeds horizontal, manifestly carinulate, more or less egg shaped and shining. Embryo oblong, radicle, rather terete, cotyledons usually oblong orbicular, flattish, scarcely longer than the radicle. Elegant low herbs, for the most part perrenial, rarely annual ; sometimes with a very short or subterraneous stem,

* Tourn. inst. 419. t. 236. D. C. prod. l. p. 291. Viola. spec. Lin. G. D. S. B. Violarieæ, p. 320.

these are called stemless, sometimes caulescent, rarely shrubby. Leaves alternate, marcescent. Peduncles solitary, axillary-flowered, furnished with two little bracteas, not jointed, reflexed at the top. Flowers drooping. Seminal leaves oblong or ovate, stalked; primordial leaves opposite, rarely meeting together.

The roots of all the species act as emetics, some are used as a substitute for ipecacuanha, and it has been ascertained by analysis, that they contain the same principle. In medicine, the flowers of violets act as a laxative, and the syrup is used by chemists to detect an acid of an alkali; for this purpose the *Viola Odorata* is cultivated to some extent at Stratford-upon-Avon.

VIOLA an extensive genus, containing 170 distinct species, and several hundred varieties.

Var. ALLEN'S JOHN BULL, a beautiful variety, raised by Mr. Rogers, of the firm of Allen and Rogers, at Battersea. It is considered by many of the most competent judges to be equal, if not superior, to any variety yet raised.

Specific character. *VIOLA TRICOLA*. (Lin. spec. 1326. D. C.) Root somewhat fusiform, stems branched, diffuse, lower leaves ovate-cordate, deeply crenate; stipulas, runcinately pinnatifid, with the middle lobe crenated; petals incumbent, with short claws; spur thick, obtuse, not stretched out; nectaries short; seeds oblong-ovate. A hardy annual, a native of cultivated fields throughout Britain, Siberia, and North America; a very variable species, or more probably a heterogeneous mass of species collected.

Heartsease was represented by old writers on the *Materia Medica* as a powerful medicine in epilepsy, ulcers, scabies, and cutaneous complaints. Haase, who administered it in various and large doses, extended its use to many chronic disorders; and from the great number of

cases in which it proved successful, it seems to deserve further trial.

VARIETIES OF V. TRICOLOR.

Var horténsis, degenèr. alpestris. crassifolia. calycina. appiendiculàta. purpùrea. ovatifolia. arvensis. sabulòsa gracilèscens. triméstris. hirta. & bellioides.

V. Tricolor is said by some to be the parent of the new varieties, now so much in repute. But by minutely examining the leaves, stipulas, and other parts of the different kinds of Pansey, we find that there are many of the sorts whose specific character does not agree with Viola Tricolor at all. They are evidently seedlings from the V. Altaica, Grandiflora, Lutea, and others.

VIOLA ALTAICA. Stem short, leaves oval; stipulas cuneiform, with acute teeth, sepals acute, denticulated; spur very short, scarcely so long as the appendages of the sepals.

H. PERENNIAL. Native on the Altian mountains. Sims, Bot. Mag. t. 1776. Flowers large, yellow, and purple. Stigma urceolate.

V. GRANDIFLORA. (Lin. mant. 120.) Stems angular, unbranched, tufted; leaves ovate-oblong, crenate; stipulas pinnatifid, somewhat lyrate; bractees, minute, with a tooth on each side, at the base; spur cylindrical, slightly curved. Flowers large, yellow, with the two lateral sepals bearded at the base, and marked like the lip with a few black lines.

V. LUTEA. (Huds. ed. 1. p. 331.) Root fibrous, slender; stems triangular, simple; leaves ovate-oblong, crenate, fringed; stipulas palmatifid; sepals lanceolate, acute, petals wedge shaped, with long distinct claws, spur the length of calyx.

H. PERENNIAL. A native of England, Wales, and

Scotland. Flowers yellow, larger than those of *V. tricolor* with blackish, branched, radiating lines; the lateral petals are palest, the two upper ones sometimes purple. Petals all bearded at the base. When all are purple, Hooker says this is the *V. amœna* of authors.

CHOICE OF SORTS. The properties of a good Heartsease lie chiefly in the brilliancy of the colours and the shape of the flower. The form of the flower ought to be nearly round; the petals proportionate, without fringe of any sort round their margin; the lower petal spreading wide at the eye, the eye small with the pistillum placed in the centre of the eye.

The principal aim is to get the flower of such a roundness as to do away with the small angles that are seen where the margins of the petals intersect each other.

NUMBER OF VARIETIES. To draw any conclusion as regards the number of distinct sorts now in cultivation would be wholly impossible, as every grower has got his own favourite sorts.

Collections of Pansies are to be had from most of the florists around London; among the choicest are those of Messrs. Allen and Rogers, of Pimlico and Battersea; Mr. Brown, of Slough; Mr. Young, of Epsom; Mr. Mountjoy, of Ealing; Mr. Henderson, of Pine-apple Place; and Mr. Lee, of Hammersmith, who brought the choice varieties into cultivation.

The results of various experiments relative to the growth of the Pansey amount merely to this—that to produce fine large blooms due attention must be paid to soil, situation, and often transplanting, as young plants are always found to produce the finest marked and largest blooms.

SOIL AND SITUATION. Pansies delight to grow in a cool shady situation, and in a light rich loamy soil. A compo-

sition of good loam, enriched either with rotten dung, leaf, or vegetable mould, will grow them in the highest perfection: yet they will grow and bloom abundantly in any good garden soil. But by proper soil, often transplanting, and due attention to shading, situation, and watering, you may have a succession of fine large blooms for nine months in the year.

PROPAGATION. Their modes of propagation are by cuttings, slips, layers, and seeds.

BY CUTTINGS. They will grow from cuttings at almost any time of the year, by choosing the proper shoots and paying due attention to shading them. The spring and end of summer are preferred by some; but the best time of the year is the autumn. By selecting the tips of the young shoots in the months of August or September and planting them in pots of sand, then placing them in a cold frame is a successful method of increasing them by cuttings.

BY SLIPS. They will grow by slips or dividing at the root at any time of the year, by planting them in a shady part of the garden.

BY LAYERS. Laying is considered the safest method for many of the sorts; yet there are some that do not succeed so well by layers as from cuttings. Laying may be done at any time of the year when the plants are in a growing state. The process is to take finely sifted mould and lay all round the plant and in among the stems, leaving only the tips of the shoots in sight, and they will root freely at every joint.

FROM SEEDS. New varieties are obtained from seeds which ripen freely in the summer months. Seeds should either be sown in a shady border, or in pots and placed in a gentle heat, until the seminal leaves appear; then they may be turned in the open air until fit for transplanting.

How to obtain New Varieties of the Pansey.

A Variety is an inferior distinction commonly applied to a plant that has been produced by impregnating the flowers of one distinct species with that of another; the issue so produced sometimes differs from either: such a production may be termed a monstrous birth or a variety. —such as *Viola tricolor*, var. *Lady Bath*; or var. *Allen's Queen Adelaide*; probably obtained by impregnating one choice variety of the Pansey with another. The distinction of varieties and sub-varieties arise sometimes from accidental causes, such as culture, management, &c.

The manner in which new sorts of the Pansey are to be obtained, is by taking the anthers, containing the pollen from one distinct variety, and placing them on the stigma of another distinct sort; as soon as the bloom expands by this process, the stigma or extremity of the pistillum, the female organ of the flower, becomes impregnated by the farina or fertilizing dust from the anthers or male organs of the other. Thence the fecundating principle of the anthers is conveyed through the style to the germen or ovarium, which afterwards swells into a gravid seed-vessel or pericarpium containing many seeds; the seeds saved from flowers so fertilized are likely to produce flowers differing considerably from either of the parent varieties. It may be necessary to observe that unless the process be performed as soon as ever the corolla expands, and the other anthers picked off, the experiment may not be attended with the salutary effects that might otherwise be anticipated, as in many

hermaphrodite flowers the impregnation is carried on before the flowers expand. By not attending to this in time the stigma becomes fertilized by the pollen, from its own flower; therefore it is of no use to impregnate it with a different sort afterwards as then the affair between the parts of fructification is over. In the Pansey tribe, the style supporting the stigma extends itself considerably beyond the anthers; therefore it may appear strange how the farina can reach the stigma, as if the fecundating principle did not touch the stigma, the seeds would never ripen; but it is the same case with the Pansey as hundreds of other plants and flowers that may be viewed on the all-instructing page of nature. By observing the manner in which the flowers of the Heartsease are placed on the flower stems we at once see that they assume a form most admirably calculated to receive the farina on the stigma in its fall from the anthers.

In flowers which stand erect we generally find the Pistillum shorter than the stamina; therefore at the bursting of the anthers, the farina is sure to fall on the pistillum, it being placed directly underneath them at the bottom of the flower cup.

By minutely examining the formation and position of the corolla stamina and the other parts of fructification in the Viola, also the sudden erection of the flower-stem when the seeds are about to ripen, we can plainly perceive that they all contribute to one great end, viz. the ripening of the seed.

But not in the Pansey tribe alone is this wonderful provision in nature to be observed. In every plant, leaf, flower, and floweret, that adorn the richly painted carpet of nature, the moralist may trace the wonderful mechanism

so richly displayed in the wondrous works of the Great Creator,

“ Who moves in a mysterious way
His wonders to perform;
He plants his footsteps in the sea,
And rides upon the storm.
Deep in unfathomable mines
Of never-failing skill,
He treasures up His bright designs,
And works His sovereign will.”*

Another wonderful instance of the provision of nature for all her cares, is in that of the *Colchicum autumnale* or meadow saffron, which is so beautifully described in Paley’s Natural Theology: as follows—

“ I have pitied this poor little plant a thousand times. Its blossom rises out of the ground in the most forlorn condition possible ; without a sheath, a fence, a calyx, or even a leaf to protect it: and that, not in the spring, not to be visited by summer suns, but under all the disadvantages of the declining year. When we come however to look more closely into the structure of this plant, we find that instead of its being neglected, Nature has gone out of her course to provide for its security, and to make up to it for all its defects. The seed-vessel, which in other plants is situated within the cup of the flower, in this plant lies buried ten or twelve inches under ground within the bulbous root. The tube of the flower, which is seldom more than a few tenths of an inch long, in this plant extends down to the root. The styles in all cases reach the seed vessel; but it is in this, by an elongation unknown to any other plant.

* Cowper.

All these singularities contribute to one end. 'As this plant blooms late in the year, and, probably, would not have time to ripen its seeds before the access of winter, which would destroy them; Providence has contrived its structure such, that this important office may be performed at a depth in the earth out of reach of the usual effects of frost.' That is to say, in the autumn nothing is done above ground but the business of impregnation, which is an affair between the antheræ and stigmata, and is probably soon over. The maturation of the impregnated seed, which in other plants proceeds within a capsule, exposed together with the rest of the flower to the open air, is here carried on, and during the whole winter, within the heart, as we may say, of the earth, that is, 'out of the reach of the usual effects of frost.' But then a new difficulty presents itself: seeds though perfected, are known not to vegetate at this depth in the earth. Our seeds, therefore, though so safely lodged, would after all be lost to the purpose for which all seeds are intended. Lest this should be the case, 'a second admirable provision is made to raise them above the surface when they are perfected, and to sow them at a proper distance,' viz. the germ grows up *in the spring*, upon a fruit-stalk, accompanied with leaves. The seeds now in common with those of other plants, have the benefit of the summer, and are sown upon the surface. The order of vegetation externally, is this:—The plant produces its flowers in September; its leaves and fruits in the spring following."

We conclude this description of the saffron by adding the following lines.

No velvet mantle, no embroidered véil,
Shields poor weak saffron from the northern gale.
Her lovely form so delicate, we find
Nipt by the storms, and blasted by the wind;





Thompson's Cicero.

J. Freeman del.

W. Anson lith. J. C. Grace, hatched &c.

Deep in the earth her callow young hid lies,
 Until the wintry wind, all northward flies;
 Soon as the gelid storms do cease to run,
 She heaves them forth to taste the vernal sun.

Thompson's Cicero, a splendid variety of the Pansey, raised by Mr. Thompson, of Iver, Gardener to Lady Gambier. A view of the drawing will convey an idea of its properties better than any lengthened description we might here give. However it is but justice to state that to Mr. Thompson, the admirers of the Heartsease are particularly indebted for the raising of some of the best sorts now in cultivation.

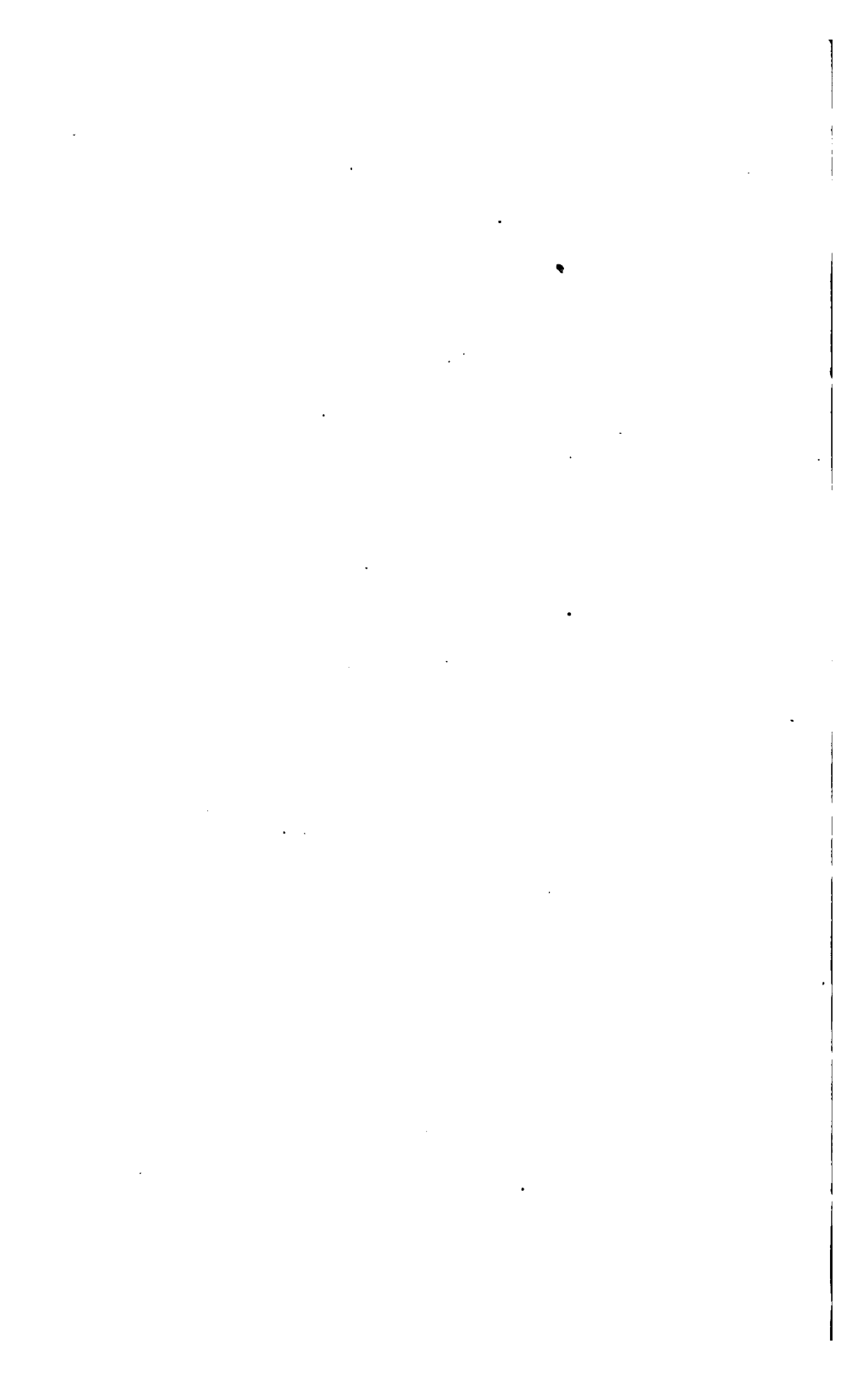
The Pansey may be termed the Queen of flowers, as it continues to bloom forth in its own unostentatious guise, forming a leading feature in almost every collection of plants and every little garden throughout the kingdom, the greater part of the year. It commands our esteem not only on account of the rich tone of colour contained in every variety, and the immense number of blooms that may be produced from one plant in the course of the season; but also on account of the fragrance attached to many of the sorts. These and other attractive qualities render the Pansey at once the beauty and pride of the garden. In the words of the poet, Montgomery,

"She smiles upon the lap of May,
 To sultry August spreads her charms,
 Lights pale October on his way,
 And twines December's arms."

Owing to the facility with which new varieties of the Heartsease can be obtained from seeds, its growth and culture have lately been greatly promoted by several Ladies of rank and fashion, who seem to make the raising of new sorts a favourite study. It is curious to observe, that many who have spent nearly all their lives in the pleasures of a

garden, have only until very lately condescended to treat the poor Pansey in any other way than as a noxious weed.

There is perhaps no instance in the annals of history of so rapid an increase among any one natural family of plants, as in that of the Pansey: for few years ago the only sorts that possessed any merit round London was a yellow variety described in the Horticultural Journal to be imported from France; a purple sort raised in the nursery grounds at Slough; and var. George the Fourth. How the last mentioned variety came into the possession of florists, we have not yet been able to learn. But when we now look on the hundreds of beautiful varieties that are to be found in every florist's garden of any note, throughout the kingdom, such an increase furnishes a wonderful proof of the progress of floriculture throughout England. For had not the experiment of impregnating the flowers of the different species of the Viola been tried, the world might yet be deprived of nearly one thousand varieties of Panseys that now add fresh life and beauty to the flower garden. We therefore have no doubt that such an increase among one tribe of plants will have a tendency to stimulate the lovers of floriculture to try still further experiments among many others nearly allied, throughout the vegetable kingdom.



The History of the Pansey as a Florist's Flower.

Under the head of the history of the Pansey as a Florist's Flower, we quote the following from the Gardener's Magazine, which has been communicated to Mr. Loudon, by one of the numerous correspondents who contributes to that valuable work. "The great beauty and variety of the *Viola tricolor*, now cultivated under the name of the Heartsease, Pansies, &c. may be sufficient excuse for the following short remarks:—The first mention I have met with of Pansies, or three faces under a hood, (which latter is no inappropriate name,) is in some manuscript papers which have passed through my hands relating to the management and contents of Sayes Court Garden, in Surrey, by the celebrated Evelyn, written in 1687, where Pansies are enumerated in the list of coronary flowers for the parterre and borders.

"From that period, up to about 1810 or 1812, there appears to have been little attention paid to their culture; and, perhaps, the only varieties that occurred during that period were such as arose accidentally, and passed unnoticed, being less interesting than the original species *Viola tricolor*. So far as my information extends, I believe that the following may be the commencement of their cultivation as distinct varieties.

"About the period above noticed, Lady Monke, then Lady Mary Bennet, had a little flower garden in the grounds of her father, the late Earl of Tankerville, at

Walton, who was a zealous cultivator of plants. In this little garden was a figure of a heart, into which this amiable Lady used to plant the varieties of Pansies, which she accidentally discovered growing in her father's garden. Aided by the industry and zeal of Mr. Richardson, then and still gardener at Walton, several pretty varieties were raised or discovered, and transplanted to this little parterre. In 1813 or 1814, several distinct varieties were thus obtained; and these having attracted the notice of the late Mr. James Lee, of Hammersmith, he availing himself of the intercourse then opened with the Continent, applied to some of his correspondents in Holland, and procured from them a large blue variety, which is still occasionally seen in the old gardens, and which, as a matter of course, was soon added to the Walton collection; Mr. Reed, one of the foremen of the Hammersmith Nursery, turned his attention to the same subject; and in course of a few years twenty varieties were to be had in that splendid establishment. Mr. Richardson, was no less active in enriching the Walton collection, both with seedlings of his own, as well as those of others; till at last, the two collections became very numerous in varieties.

“A flower so pretty, and of such easy culture, thus almost became a general favourite; and it has now arrived at that point of perfection as to be ranked in the list of florist's flowers, a situation which the Pansey is likely to hold for some time. It is but justice to remark that the Walton collection to this day maintains its credit as the first in the Kingdom, not only on its being the oldest, but also the most select; although several nursery collections may be more numerous in varieties.”

J. M. Surrey, July 4, 1835.



Montjoy's Beauty of Ealing.

J. Freeman del.

W. Johnston sculp. H. G. S. 1860.

We visited the delightful gardens at Walton in July last, where the small garden belonging to Lady Monke remains in its original form to this day. We were informed by Mr. Richardson, to our satisfaction, that besides the varieties of the *V. tricolor* selected for this little garden by Lady Monke, there were also planted several of the *V. altiaca*, *grandiflora*, *lutea*, *amcena*, all of which happen to be the very same species which as we formerly stated that many of the choice varieties of the Pansey have evidently been raised from. Thus far has the origin of this beautiful tribe of plants been traced—Thus far the admirers of the Heartsease are indebted to that amiable Lady and the assiduous exertions of Mr. Richardson, for being the first who brought into cultivation a family of plants which has been cultivated to such an extent as that they have now become the pride of the flower garden.

Mountjoy's Beauty of Ealing, a delightful variety of the Pansey raised by Mr. Mountjoy, Florist, of Ealing, whose splendid collection of Pansies has now become very numerous.

How to manage the Pansey so as to have a continual succession of flowers during the Spring, Summer, and Autumn.

To have a regular succession of blooms during those seasons requires some practical skill as regards the time of planting and the disposing of the plants into different situations, &c. To have a good display of flowers during the hot months in Summer, due attention must be paid to

having the sorts planted in every aspect and situation throughout the garden. To have a good show in the months of April, May, and June, plantations ought to be made in the months of September, October, and November. In the planting of them out various methods have been adopted, but perhaps the readiest to propagate from cuttings is to take and plant cuttings where they are meant to remain until they have done flowering. In preparing the cuttings care ought to be taken to cut close to a joint, a rule which ought to be strictly attended to in making cuttings of every description, as there have been many hundreds of plants lost by not attending to this rule; but in the Pansey it is quite necessary, as all that is left below the joint is sure to rot, and afterwards the whole cutting. Another successful method of propagating the Heartsease from cuttings is to plant them under the shade of trees beyond the reach of any drip that might injure them.



Fairburn's Anna Maria.

ANNA MARIA, a very pretty variety of the Pansey, raised by Mr. Fairburn, nursery-man, at Clapham, who has also been very successful in raising several choice sorts. The present variety is very beautiful, the colours being of the richest hue imaginable. It is well worthy of a place in every collection, being the finest dark variety now in cultivation, with the exception of var. Lucifer, raised by Mr. Lane, of Berkhamstead.

An Explanation of the technical terms used in the Generic Character of the Viola. [See p. 12.]

Sepals unequal, all, more or less, drawn out downwards into ear-like appendages, (produced from the dilatation of the nerves) erect after flowering. *Sepal segment* is derived from Segmentum, i. n. The sepals are the divisions or leaves of the calyx. *Calyx* from Calyx, ycis. m.—the outer envelope or cup of a flower; also applied by some authors to the outward peel or rind of a walnut or almond. Linnæus describes seven different sorts of Calyxes—viz. the perianthium, the amentum, the glume, the spatha, the involucre, the calyptra, and the volva.

A perianthium is considered a proper calyx, surrounding only one flower, as violæ or convolvulus; its colour being generally the same with that of the leaves. It is termed a common calyx when it surrounds an aggregate head of flowers or flowerets. When the calyx consists of only one piece it is termed monophyllous; when of two pieces or leaves it is termed diphyllous; and when it con-

sists of many leaves it is termed polyphyllus. When it is situate above the ovarium or seed vessel the flower is termed epigynous, or an epigynous flower; when situate below the ovary a hypogynous flower; when placed partly above and partly below, a perigynous flower. The calyx in the *Viola* tribe assumes a pendant form before the flowers expand; but after flowering, the seed vessel surrounded by the calyx stands quite erect. The cause of such an erection in the flower stem at that period can be looked on in no other light than as a wonderful effort in nature to assist the maturation of the seeds.

On the same subject we quote the following from Paley's *Natural Theology*.—

“The one great intention of nature in the structure of plants seems to be the perfecting of the *seed*; and, what is part of the same intention, the preserving of it until it be *perfected*. This intention shows itself, in the first place, by the care which appears to be taken, to protect and ripen, by every advantage which can be given to them of situation in the plant, those parts which most immediately contribute to fructification, viz. the antheræ, the stamina, and the stigmata. These parts are usually lodged in the centre, the recesses, or the labyrinths, of the flower; during their tender and immature state, are shut up in the stalk, or sheltered in the bud: as soon as they have acquired firmness of texture sufficient to bear exposure, and are ready to perform the important office which is assigned to them, they are disclosed to the light and air, by the bursting of the stem, or the expansion of the petals; after which they have, in many cases, by the very form of the flower during its blow, the light and warmth reflected upon them from

the concave side of the cup. What is called also the *sleep* of plants, is the leaves or petals disposing themselves in such a manner as to shelter the young stems, buds, or fruit. They turn up, or they fall down, according as this purpose renders either change of position requisite. In the growth of corn, whenever the plant begins to shoot, the two upper leaves of the stalk join together, embrace the ear, and protect it till the pulp has acquired a certain degree of consistency. In some water plants, the flowering and fecundation are carried on *within* the stem, which afterward opens to let loose the impregnated seed. The *pea* or papilionaceous tribe, enclose the parts of fructification within a beautiful folding of the internal blossom, sometimes called, from its shape, the boat or keel; itself also protected under a penthouse formed by the external petals. This structure is very artificial: and, what adds to the value of it, though it may diminish the curiosity, very general. It has also this farther advantage (and it is an advantage strictly mechanical), that all the blossoms turn their *backs* to the wind, whenever the gale blows strong enough to endanger the delicate parts upon which the seed depends. I have observed this a hundred times in a field of peas in blossom. It is an aptitude which results from the figure of the flower, and, as we have said, is strictly mechanical; as much so, as the turning of a weather-board or tin cap upon the top of a chimney. Of the *poppy*, and of many similar species of flowers, the head, while it is growing, hangs down, a rigid curvature in the upper part of the stem giving to it that position; and in that position it is impenetrable by rain or moisture. When the head has acquired its size, and is ready to open, the stalk *erects* itself, for the purpose, as it should seem, of presenting

the flower, and with the flower, the instruments of fructification, to the genial influence of the sun's rays. This always struck me as a curious property; and specifically, as well as originally, provided for in the constitution of the plant: for, if the stem be only bent by the weight of the head, how comes it to straighten itself when the head is the heaviest? These instances show the attention of nature to this principal object, the safety and maturation of the parts upon which the seed depends."

The petals or flower leaves are unequal in every species of the *Viola*, convolute in æstivation, with three nerved claws, the lower one drawn out downwards into a hollow spur. *Petulum* or petals and *folium* are synonymous, according to their etymology; the one is used to express the corolla or painted leaves of the flower, and the other the proper leaves of the plant. *Corolla* from *Corolla*, æ. *f.* a little crown, garland, coronet, or chaplet. The upper part of the corolla or petals is called the *lamina*, from *lamina*, æ. a thin plate,—the lower part the *unguis*, from *unguis*, is. *m.* a claw. When the corolla consists of only one piece it is called monophyllous, one petalled; when it consists of many leaves it is termed polyphyllous, many petalled. The monophyllous corolla is of various forms; it is sometimes *campanulate*, from *campana*, a bell, bell shaped. *Papilionaceous*, from *papilio*, a butterfly, butterfly shaped, or *ringent*, from *ringens*, tis. grinning or gaping; as in the order *Libiatae*, or *infundibuliform*, from *infundibilum*, a funnel, funnel shaped, &c. The stamens are approximate, appropinquans, or converging, sometimes coarctate, not joined, inserted on the top of the teeth of a pentagonal five toothed torus. Converging, applied to the corolla, leaves, &c. of a plant when their apices approximate. *Coarctate*, from *coarcto*, to straighten or press together, crowded or bundled together. *Torus*, from *torus*, i. *m.* a tuft, garland, &c. The stamens are the male organs of the flower. They contain a

pulverulent substance called pollen. *Stamen, inis. n.* a chive, or little thing that stands out like threads in flowers. A stamen consists of two parts, the filament and the anther. *Filament*, from *fielium*, i. n. a thread. The filaments in the Heartsease are dilated or widened at the base, from dilato, to spread. The anther is the knob shaped body attached to the top of the filament. *Anther*, from *anthera*, æ. f. and the Greek word *flower*. In the Heartsease the anthers are so close together that they very much resemble the internal parts of many of the flowerets found in the order Compositæ; hence this gave rise to the order Sengenesia Monogamia of old botanists, in which we find both the Heartsease and the Lobelia classed. But modern botanists have very judiciously separated them from this order, and classed them in Pentandria Monogynia. The pollen is the fertilizing dust contained in the anther, from *pollen, inis, m.* fine flower or dust. The pollen, on microscopical observation, is found to consist of various shapes, its general shape is globular, sometimes prismatic, cylindrical, reniforme, and spheriodal.

The anthers containing the pollen generally burst by means of a longitudinal cleft, and sometimes with an elastic spring, a cloud of pollen is exploded from the anther, whereby it reaches the stigma although they may not be close together. There is an oily fluid exuded from the anthers of many orchideous plants which fertilizes their pistils, similar to the pollen or dust in other plants. To assist the process of impregnation in the orchideæ, nature has placed the anthers immediately on the pistils. But in the Pansey tribe the seeds are lodged in a capsule or dry fruit. *Capsula, dim.* of *Capsa*, æ. a little chest. A capsule may consist of one division or of several; the divisions





Allen's Minerva.

or cells are termed *loculaments*, from *loculamentum*, the *dim.* of *locus*. i. e. a room or place. The capsules in the Pansey are elastic, contracting at maturity and ejecting the seeds, &c.

ALLEN'S MINERVA, a very pretty variety of the Pansey, raised by Mr. Rogers, of Battersea, who has produced more choice sorts than any other florist in the vicinity of London. His general collection of Heartsease will no doubt long continue to be admired.

The Flower Garden.

We have now come to the month of November, when the flower garden begins to assume a different aspect. The beauteous flowers that delighted the eye of the florist for months past, the geranium, the rose, the pink, the tulip, and a whole train of the nobles of the vegetable kingdom, have now fled from the spot consecrated to Flora. The Dahlia, too, with all her gaudy pomp and pride, has yielded to the hand of stern winter; while she lived and continued to send forth her myriads of beauteous blossoms, the eye of the florist was withheld from all the other gems of the flower garden. The cistus, too, with all her host of followers, has likewise withered.

Sweet Cista, rival of the rosy dawn,
Put forth her buds and grac'd the dewy lawn;
Expanded all her infant charms to light,
And flutter'd in the breeze and blest the sight.
But, Ah! too transient was her blooming grace,
The blush was hectic that o'erspread her face:
One fatal morn beholds her beauty blow,
No noon of health succeeds, no evening glow;
A sad Ephemeron she yields her breath,
Gives to the winds her sweets and sinks in death.

Drummond.

But there is one alone of all the flowery train that yet remains to attract the florist's wandering eye.—The Pansey, the pride of the flower garden, does yet survive, and we doubt not but that she with her three faces under one hood will long continue to be admired, as indeed she ought to be, being the only survivor left to adorn the flower garden.

On Hybrid Varieties of Florist's Flowers.

A learned writer of the nineteenth century observes that all the new hybrid varieties of florist's flowers which have been produced of late years, viz.—those which belong to the Orders *Compositæ*, *Violariæ*, *Caryophyllæ*, *Liliacæ*, *Onagrariæ*, &c. &c. were never designed by nature to grace the flower garden. Many of them have been produced merely by accident ; by paying attention to mixing the varieties and saving the seed from such varieties ; and also by means of the cross impregnation resorted to by modern florists. A great portion of them have been produced by the ingenuity of man ; but they are like many more of his works, oftentimes very transitory: for if a florist, after being lucky enough to raise from seeds a new and striking hybrid variety of any flower, be not very cautious how he treats this beauteous new-begotten gem of art, he will in the course of a few years find it assume the original form of the parent variety. Such productions are generally termed *the sports of nature*. They have always a tendency to resume their original structure: inattention to their treatment, as regards proper soil, &c. will alone cause them to degenerate. The only method to secure the original sort is to propagate from it by cuttings, layers, &c. and not from seeds.

In producing choice hybrid varieties of flowers there is much done by artificial means ; but there are no doubt new sorts obtained by means of insects. Professor Springel

and other botanists have made experiments sufficient to establish this fact. Were it not for the different species of insects that feed on different plants, there are many fruits which would never arrive at a state of maturity. If we watch the motions of certain species of insects we find that they dwell on certain species of plants. If it were possible to observe the different motions of a bee in the course of a day we would find that where this species of insect commences its course in the morning it continues its ravages on the same species of flower during the day. Such is the admirable wisdom displayed in all the works of nature ; they are all made to harmonize together.

All are but parts of one stupendous whole,
Whose body nature is, and God the soul. *Pope.*

As regards the sexual system of Linnæus, it is well known that in Diccious plants, or herbs which produce their male flowers on one plant and their female flowers on another, the process of impregnation could never be accomplished were it not through the agency of insects. Bees are clothed with a downy substance that when they enter the recess of the male flower the farina, being composed of particles which quickly adhere to their tunic, is by this means conveyed to the female flower ; or perhaps, in other plants the farina is wafted by the winds to a great distance ; such are the hidden secrets of the all-silent working hand of nature, that perhaps there has not been one single species of animal or vegetable lost since the creation, although many may have been found to degenerate in a certain degree from their original form.

Over the animal kingdom mankind have not got so much control as they have over the vegetable kingdom.

Although one portion of rational animals may have got it in their power to withhold nutriment from another portion of their fellow beings, to that degree that they almost fancy them to be a distinct species.

“O man how fallen from thy first estate,
For nature meant and made thee truly great;
Lord of thyself and all her works below,
And stamped the glorious privilege on thy brow.

To each and all were equal favours given,
Alike partaking of the boon of heaven;
But now, alas, those dreams of bliss are flown,
While worth and virtue are alike unknown.

And men must strive against misfortune's gale,
And to the wild-winds tell their hopeless tale;
Like many beings now to misery driven—
Bereft of hope and every stay but heaven.

The Eternal Spirit, God of truth, who reigns
O'er heaven and earth, and o'er the watery plains;
Yet guides their steps and lights their dreary way,
O'er life's rude sea to realms of lasting day.”

It is a well known fact that by treating any species or variety of animal or vegetable with all the care that can be bestowed on them, has a direct tendency to improve the species; on the contrary, to oppress any species of either will tend to make them degenerate from their original form and lose a certain portion of their qualities. We may draw a comparison between the original species of the Pansey, the Hyacynth, and the Dahlia, which (although the parents of our choice sorts) are now looked on no more than common weeds, or like

“The poor peasant, now the man no more,
Who ranks with the brutes and picks his scanty store.” *Strachan.*

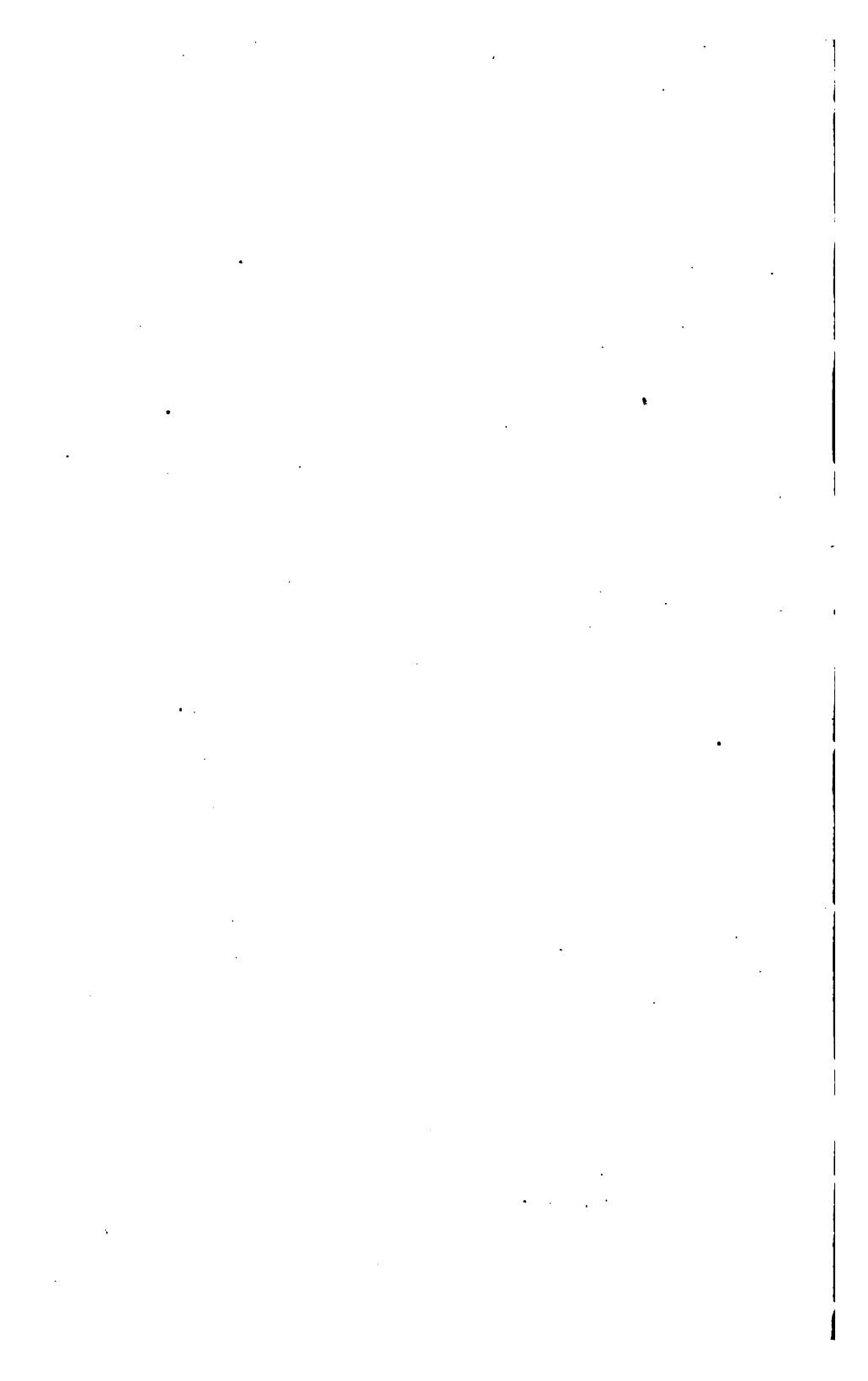
It may be so also with the Ass; for we have witnessed the original form of this animal in one now at the Surrey

Zoological Gardens. This animal is much larger and more beautiful in every respect than the common donkey of the moderns: there is as wide a difference between the two animals as there is between the dray-horse and the stately courser; or between the lusty mountaineer and the refined and polished citizen. But no doubt were a choice variety of either an animal or vegetable to be improperly dealt with, their progeny would very soon lapse into that self-same state of rusticity which was inherent among their forefathers of old. We therefore have a proof that we ought not to build too much on our own efforts; for we may be compared to the hybrid varieties of flowers here alluded to, which are extremely beautiful in their season. It no doubt requires superior skill and judgment to produce them; but it requires still greater skill to make them retain their attractive qualities after we have got them.

GAINES'S LORD AUKLAND. This variety of the Heartsease is exceedingly beautiful in every respect. It was raised by Mr. Gaines, florist, of Battersea, who has a numerous collection of the Heartsease.



Gaines's Lord Auckland.



*A few hints on the culture and management of the
Camellia.*

It is our intention in future, in order to make this work more interesting, to devote a certain portion of its pages to the treatment of any other new or rare plants which may have been introduced into this Country. This may be more interesting to some than to fill it upon the Heartsease alone, the propagation of which is already well known to almost every individual, from John-o-Groats to the Lands-end in Cornwall. There is perhaps no tribe of plants worthier of our notice at present than the Camellia or Japan Rose. We sit not down to quote from any other Author on this subject, but to deliver in good plain English the results of our own practical experience, for the use of those who may not be much acquainted with its treatment. Among the numerous species now to be found among our tender exotics, the Camellia at present may be said to stand supreme for beauty and magnificence.

Although there are but few plants which die a harder death than the Camellia, yet it requires some practical skill to grow and bloom this plant well. The Camellia may be propagated from cuttings, seeds, grafting, or inarching with equal success, if properly managed.

The most proper time of the year to propagate from cuttings is about the beginning of October. The best sorts for this purpose are the single red and the Warataw. The cuttings ought to be planted in pots filled with silver sand, then placed in a close frame or under hand-glasses, until about the beginning of December. The cuttings afterwards ought to be placed in a gentle heat. The best method is to fill a frame with tan, and place them in it; the air in the frame should not exceed 60 degrees of Fahrenheit in

the winter months. The heat ought to be increased as the days lengthen. The best time to inarch the *Camellia* is the months of March and August. None but the young shoots of the same season will grow in August; but, in the spring, branches of three or four years old will readily grow by inarching. An erroneous idea prevails among many who grow the *Camellia* as regards the method of inarching. Many inarch large branches of the double sorts on the single, with the intention of forming large plants at once; expecting by this method to gain several years: but they are woefully mistaken! Plants so treated oftentimes stand still for many years without ever making any fresh shoots, unless the stocks they are worked on be in a very healthy state; even then the shoots they make are seldom more than an inch or two in length.

Where the stocks are not well rooted, grafting ought to be resorted to. The best month for grafting the *Camellia* is December, as the Sun's rays at that time are not as powerful as in the Spring. The grafted *Camellias* ought to be treated in the same way as the cuttings after their introduction into heat. We have seen a shoot of *Camellia reticulata*, which had grown to the height of 4 feet and 1 inch in one season, the second year from its being inarched. This plant is now to be seen among the collection of *Camellias* belonging to J. Allnutt, Esq., of Clapham. The stock on which this shoot was inarched was about an inch and a half in diameter, and the branch laid on not more than four inches in length.

The best compost for *Camellias* is a portion of good loam, peat, rotten cow dung, and decayed oak leaves. For they who grow this plant in the vicinity of London, the peat from Wimbledon Common is preferable to any other—the best loam is also to be had from Norwood—

this is the loam and peat used by Mr. Curtis, Gardener to J. Allnutt, Esq. and it is but justice to state that there are but few Camellias in England in such a healthy state as his are at present.

The composition ought to be as follows:—half loam mixed with a small quantity of Cow dung, a quarter of peat, and a quarter of decayed leaves: these ought to be laid in a heap together and frequently turned and mixed together, and exposed to wind, frost, hail, rain, and sunshine for two years previous to its being used. The proper time for shifting the Camellia is about the beginning of August, or when the shoots are ripened. Great care ought to be taken not to put plants which are not well rooted into too large pots; this being one of the greatest evils among woody greenhouse plants. The great aim among gardeners ought to be to have the different varieties in bloom in the months of January and February, as that being the time of the year when a flower of any sort does gladden the eye. To effect this the plants in the summer time ought never to be placed in the open air until their buds are about the size of pease. Some gardeners place them in a gentle heat early in the summer, which greatly assists their early flowering.

When Camellias are placed in the open air too early in the summer, they generally do not bloom until April and May, when the heat of the sun is sometimes so powerful as to cause the buds to drop, unless they are kept shaded. Camellias, under the care of many gardeners, drop their buds just about the time they ought to be in bloom. When this occurs among plants which are well rooted, the cause is, in nine cases out of ten, for want of a proper supply of water. They require to be most bountifully supplied with this element when they are coming into bloom. It often occurs that the surface of the mould appears continually

wet, while the mould underneath is as dry as snuff, and probably has not tasted a drop of water for years. When such is the case the surface of the mould ought to be frequently stirred up, and a pointed instrument introduced in order to let the water circulate freely, and prevent it from running down the side of the pot; at other times the mould becomes completely saturated with water and seems as heavy as a lump of lead: this will also cause the buds to drop. This is the baneful effects of putting them into dirty pots and of worms getting into the pots among the mould. When this occurs you may bid good-day to the welfare of this or any other plant, unless they be speedily shifted and the old mould shook away; then they ought to be placed in a clean pot only large enough to contain the roots.

Although the *Camellia* requires a plentiful supply of water at certain times, the pots ought never to be placed in pans for holding the water, as the water soon becomes stagnant and is sure to injure the plant: the pots in all cases ought to be well drained. The best situation for *Camellias* in the summer season is in a shady part of a grass lawn: the grass may be suffered to grow up among the pots, it being of great use in order to keep the roots cool in the hot months of summer. The pots ought always to be placed on boards in order to prevent the worms from getting into the pots. The situation where they are to remain in the summer ought to be overshadowed with lofty trees, in order to keep the sun from scorching the leaves; this not only prevents their being scorched by the sun, but gives the leaves a healthy dark green appearance.

ALLEN'S POMONA, was raised by Mr. Rogers, of Battersea. This variety may be reckoned one of the very best of the yellow sorts. It will no doubt long continue to be admired by they who cultivate the Heartsease.



Alleni Pomena.



Lone's Lucifer.

J. Freeman del.

W. Annon lith. 12 Gracechurch St.

Lane's Lucifer, as we have already stated, was raised by Mr. Lane, florist, of Berkhamstead. Nothing can exceed the richness of colour that is to be seen in this variety of the Heartsease. We have compared flowers of this variety with var. Black Prince, Admiral Blake, and a number of other dark sorts, neither of which are in any way equal to it in beauty. This is one of the most beautiful which we have seen exhibited by Mr. Lane for the past year. We doubt not but in the course of this year he will have many other choice new sorts, as he has got upwards of one acre of seedlings which will flower this season.

As we have already stated that, in order to make this work more valuable and interesting, we have found it necessary to deviate a little from our original plan in the letter-press. As regards the illustrations they will be the same as formerly, until the work be completed. We have already given the history of the Heartsease, also mentioned the soil and situation which they are likely to thrive best in; therefore we have no inclination to make the culture of such a plant as the Heartsease appear difficult by any lengthened details on the modes of its treatment. It is already well known to every individual who professes to grow them, that there is scarce any plant now in cultivation so readily increased by cuttings, slips, layers, and seeds, as the Heartsease. The great object of this work is to give a faithful representation of all the newest and most approved varieties as they come into bloom. As far as we have yet gone we can safely say the figures for this work are by far the most accurate and faithful representations of the Heartsease ever yet issued to the public. If any one doubt this, they may very soon rest satisfied by comparing

the natural flowers with the figures for this work, and the figures for any other work yet published.

On Orchideous plants.

Among the most beautiful of flowering plants lately introduced into this country, is the Orchis tribe. This tribe of plants has of late years become very numerous in this country. Numbers of new species and genera are introduced yearly from various parts of the world. Nothing can exceed the beauty and singular structure of this interesting tribe: many of them have the fancied resemblance to the head and face of different animals. Botanists have divided them into three great divisions, viz.—Epidendræ, Malaxidæ, and Vandæ. According to the calculation made by Dr. Lindley, previous to the year 1833, the number of species which belonged to the tribe Vandæ is 487; to Epidendræ, 153; and to Malaxidæ, 380. Of that number nearly 400 have been discovered in America within the tropics; upwards of 100 from North India and Nipal; nearly 100 from the Continent of India; upwards of 50 from Mauritius; nearly 300 from the Indian Archipelago; about 50 from the island of Ceylon; and the remaining few from South Africa, Africa within the tropics, South Sea Islands, China, Japan, North America, Siberia, & Europe. Since the above calculation was made numbers of new species have been introduced by Mr. Knight, of the Exotic Nursery, Chelsea, and Mr. Lowe, of Clapton, from Rio Janeiro, Trinidad, and other parts. At present it is almost impossible to determine the exact number yet introduced, as many of them have never yet flowered.

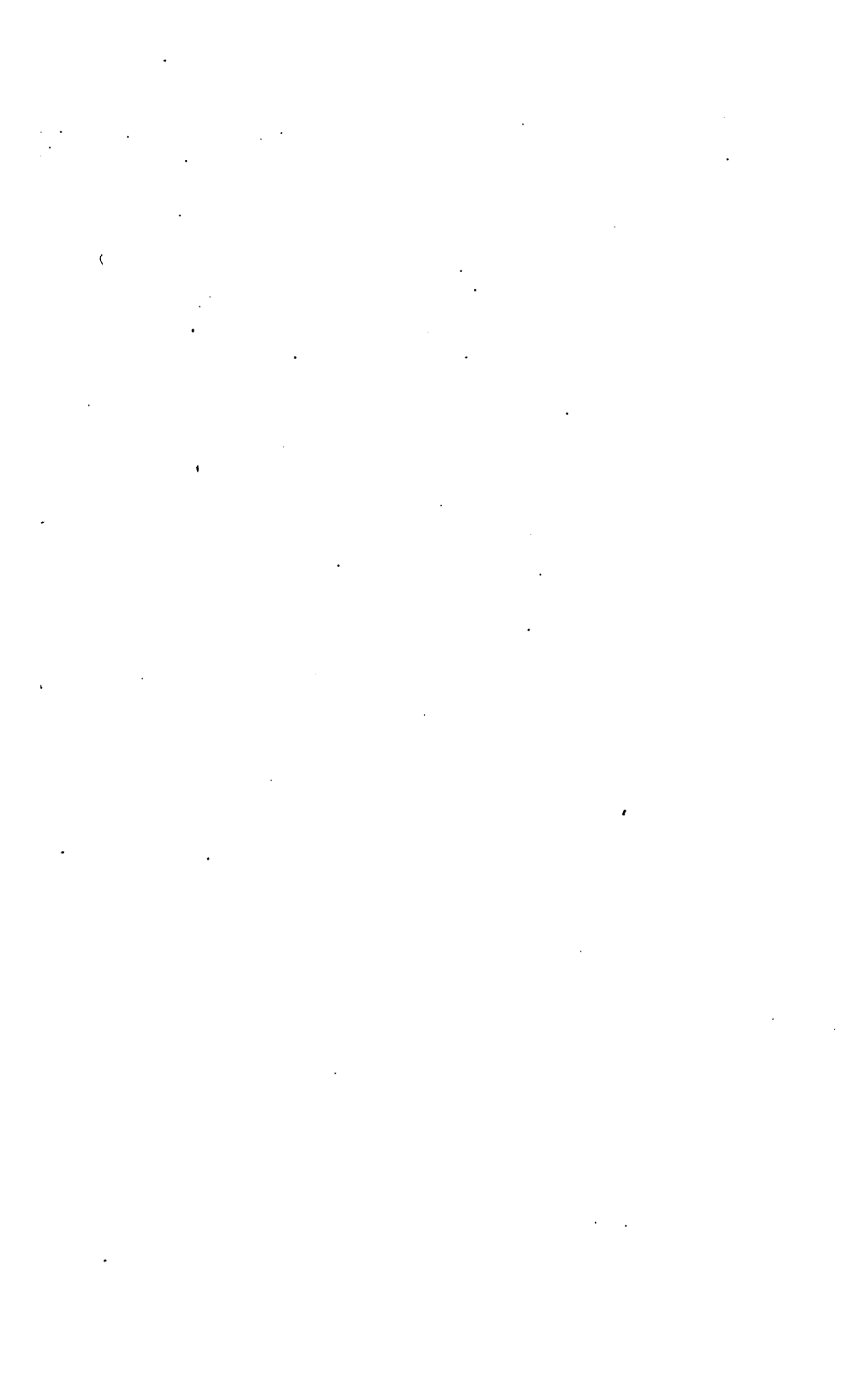
Among the most interesting species which have flowered during the past year, chiefly at Mr. Knight's, are the following: *Pleurothallis racemiflora*, *Cœlogyne fimbriata*,

Pholidota imbricata, *Dendrobium Pierardi*, *cuculata*, and *pulchellum*, *Eria stellata*, *Megaclinium falcatum*, *Polystachya luteola*, *Brasavola nodosa*, *Cattleya crispa*, *labiata*, *Loddigesia*, *Forbesii*, & *guttata*, *Epidendrum cochleatum*, *cuspidatum*, *ciliare*, *umbellatum*, *elongatum*, and *crassifolium*, *Phajus maculata*, *Brassia caudata*, *Cynochis Loddigesia*, *Catasetum tridentatum*, *Clavarium*, *semiapertum*, and *luridum*, *Cymbidium sinense*, *ensifolium*, *aloifolium*, and *ziphyfolium*, *Camaridium ochroleucum*, and *macrantha*, *Calanthe veratriflora*, *Decrypta Paueri*, *Eulophia macrostachya*, *gracilis*, and *cochelearia*, *Fernandesia elegans*, and *acuta*, *Gongora atro-purpurea*, and *maculata*, *Leptotus bicolor*, *Maxillaria Harrisonia*, *cristata minor* and *pallidiflora*, *Rodriguezia secunda*, and *planifolia*, *Renanthera coccinea*, *Saccolabium pappilosum*, *Sarcanthus astratus*, *Zygopetalum intermedium*, and *Mackai*, *Cypripedium insignis*, and *venustum*, *Notylia punctata*, *Ornithocephalus gladiatus*, *Oncidium bifolium*, *bicornutum flexosa*, *barbata*, *altissimum*, *luridum*, *papilio*, *Lanceanum*, & *divaricatum*, *Stanhopea grandiflora*, and *insignis*, with several others too tedious to mention here. Owing to the great expense and the many casualties that attend the introduction of Orchideous plants, their culture has not yet become general in England. There is no tribe of plants so difficult to form a collection of, or attended with such expense in their culture as the *Orchis* tribe. Many of the species cannot be purchased for less than 20 guineas, and some of them not for twice that sum. Many people imagine that the treatment of the common stove is sufficient to grow this tribe in. The treatment of other stove plants will do for some species of the *Cypripedium*, *Cymbidium*, *Zygopetalum*, *Bletia*, and others; but it is worse than madness to attempt to make all the different species flower

without having a house entirely devoted to themselves. It requires a very high degree of heat, accompanied with moisture and a continued humid atmosphere all the year through to make many of the species flower. It sometimes happens that when the flower is about to expand and hang forth its fairy form to view, something occurs either for want of heat sufficient, or proper nourishment for the roots, the flowers, to use the technical phrase, go blind and are seen no more until the following season. Yet we ought never to despair. "While there is life there is hope." We may compare them to the branch of a vine, which contains the embryo of the future flowers and fruit within the bud. It only wants sufficient skill on the part of the grower to bring them forth to view. Although many of them such as the *Oncidium papilio*, bloom at different times of the year by our treatment, they have no doubt a season of rest the same as other plants. Many of the species are found growing among the woods in their native country, and on the branches of trees like the Mistletoe in this country.

It has often occurred to us that were the trunks of trees covered with Lichen and Musci, introduced into an Orchideous house, many of the species would grow upon them. Or were artificial rock work composed of stones covered with Cryptogamous plants introduced and placed round a basin of water heated, the plants might grow in and among them in the manner of Alpines, out of doors. We have already seen on a wall at Mr. Knight's, species of the *Cattleya*, *Fernandesia*, *Stanhopea*, *Saccolabium*, and many others, grown in the highest perfection. The wall is kept continually moist; it is also overrun with a species of moss which their roots delight to run among.

Var. *Pomona* of the *Pansey*, was raised by Mr. Thompson, of Iver; but owing to a mistake on our part we have given it the name of Allen's *Pomona*.





Thompson's Horace.

J. Freeman del.

W. Anderson lith. 12. Grav. ch. 1. 1873

THOMPSON'S HORACE was raised by Mr. Thompson, of Iver. The flowers of this sort are sometimes larger than the drawing here given. This variety ranks high among the Pansies. Its flowers and foliage are of great beauty and magnificence.

Many novelties are this year anticipated from the collections of Mr. Fairburn, of Clapham; Mr. Rogers, of Battersea; Mr. Brown, of Slough; Mr. Rollisson, of Tooting; and Mr. Young, of Epsom. If we may judge of the present year from the past, we may expect many new and striking varieties from among the immense number of seedlings now in their possession. We would willingly give a list of some of the most approved sorts from among the hundreds of names which are to be found in the catalogues now before us. But on account of the changeable nature of many of the varieties, we cannot venture to do so until the hand of time decides their merits.

It is the same among Pansies as among many other florists' flowers. Plants which are most beautiful are oftentimes most difficult to cultivate. We have watched the different varieties of the Heartsease for these some years past, and have found that many possessing great merits one year were no where to be found on the following. Many of them have never been propagated beyond the parent plant. Young plants oftentimes make only one shoot. The florist, being ever eager to have as many flowers on one plant as possible, suffers the plant to produce flowers until it becomes completely exhausted, and of course dies a natural death. Whereas if timely care

had been taken, and the florist had courage enough to pick the remaining flower buds off after deciding the merits of a new sort, this would encourage the plant to make fresh shoots. Or if the main stem was cut down and made a cutting of, young shoots must spring from the root. It is a pity that a good sort should be lost by this means; although not a few have. It is like grasping at the shadow and losing the substance. We need only mention var. Goliah, raised by Mr. Rogers, which for size and magnificence surpassed any sort yet known. Yet this variety was so difficult to cultivate, although every care was taken of it, that it perished after producing only one flower—leaving not even a wreck behind. For the above reasons we must endeavour to know well the merits of all the new sorts before we venture to recommend them. The choicest sorts are always the most difficult to increase. It would only be deceiving ourselves and others to give figures or names of sorts which might in the course of a few years be no where to be found only in this work.

A select List of the choicest Plants yet introduced into this Country, chiefly for the Greenhouse and Conservatory.

To the Order Leguminosæ belong many climbing, trailing, and twining plants of great beauty. The shores of Northern Europe are enamelled with the golden-tasseled broom and furze with their myriads of beauteous blossoms, as well as the sterile deserts of burning Africa, with other species belonging to this Order.

Among the most beautiful yet known are the following.
—*Kennedia dililata*, *Comptoniana*, *Knightiana*, *nigricans* and *rubicunda*, (named after Mr. Kennedy, nurseryman,

Hammersmith,) *Templetonia retusa*, and *glauca*, (Templeton, an excellent Irish botanist,) *Bossiaea linophylla*, *rufa*, and *Scolopendrum*, (M. Bossieu Lamartinere,) *Clyanthus puniceus*, *Scottia dentata* and *laevis*, (R. Scott, M. D. Professor of Botany,) *Gompholobium Knightiana*, (Gomphos, a wedge, lobos, a pod,) *Burtonia conferta*, (D. Burton, a collector for Kew Gardens,) *Corizema ilicefolia*, *Henchmannia*, and *nana*, (Choros, a dance, zema, drink,) *Canavalia Boneriensis*, (Canavali, its Malabar name,) *Podolobium sterophyllum*, (Pous, foot, lobos, pod,) *Hovea*, *Celsi*, *mucronata*, and *longifolia*, (A. P. Hove, a Polish botanist,) *Indigofera salvatyca*, and *Australis*, (Indigo, a blue dye, fero, to bear).

The following species belong to different orders: *Mimosa prostrata*, (Mimos, a name, mimics, animal sensibility,) *Acacia taxifolia*, *Cunninghamia*, *Brownii*, *astringens*, *pentadena*, *pubescens*, and *venusta*, (Akazo, to sharpen, many species thorny,) *Acrotriche heteronema*, (Akros, a point, thrix, a hair,) *Beaufortia splendens*, (Duchess of Beaufort,) *Boronia serrulata*, (T. Bourne, a servant of Dr. Sibthorpe,) *Eriostemon buxifolium*, (Erion, wool, stemon, a stamen,) *Anthocercis viscosa*, *littorea*, and *albicans*, (Anthos, flower, kerkis, ray,) *Dracophyllum gracile*, (Drakos, a dragon, phyllon, flower,) *Aitonia capensis*, (Aiton, Royal gardens, Kew,) *Stenochilus retusa*, and *viscosa*, (Stenos, narrow, cheilos, a lip,) *Andersonia sprengeloides*, (W. & G. Anderson,) *Sprengelia incarnata*, (Sprengel, of Spandau, in Brandenburg,) *Prostanthera violaceæ*, (Prostheke, an appendage, anthera an anther.) *Epacris heteronema*, *obtusifolio*, *ceriflora*, *pungens*, *macrophylla*, *variabilis*, *campanulata alba*, *campanulata rubra*, *paludosa*, and *impressa*, (Epi, upon, akros, the top, habi-

tation,) *Pimelia hispida* and *intermedia*, (*Pimele*, fat,) *Polygala speciosa*, and *grandiflora*, (*Polys*, much, gala, milk,) *Grevillea punicea*, and *concinna*, (C. F. Greville, a patron of natural science,) *Hibbertia Cunninghamia*, (G. Hibbert, a distinguished collector of plants,) *Tropæolum pentaphyllum*, *pusillum*, and *tricolorum*, (*Tropæ*, a trophy, leaf and flower).

A great portion of the above species are natives of New Holland. The wood of many of them being so very hard that it is with extreme difficulty they are propagated by cuttings, layers, or by inarching.

We shall therefore give a short account of the manner by which the most difficult species to grow may be propagated.





Dutchess of Gloucester.

J. Sinclair del.

W. Arden lith. 18 Gloucester St.

Dutchess of Gloucester Pansey.

We have not yet been able to learn who raised this variety of the Pansey. It has been in cultivation among the Florists, Amateurs, and Connoisseurs in the vicinity of London; for some years. The flowers are beautiful at any season of the year. Although an old variety, it is more worthy of a place in the flower garden than hundreds of other sorts. It is a sort that will always recommend itself on account of the largeness of its flowers, which, when grown to perfection, are fully two inches in diameter.

On the Treatment of the Heartsease during the Summer Months.

February and March are the proper months to prepare beds for the reception of plants to flower during the hot months of Summer and Autumn. The beds ought to be made in a different form from what they are at the Autumnal planting. The situation for plants which are meant to flower in July, August, and September, ought to be where they will not be exposed to the full influence of the sun. A situation ought to be chosen for them, sheltered either by a lofty wall or by trees, where they would only have the morning or the afternoon sun to shine on them. Care should, however, be taken not to plant them so near the trees as to be exposed to their drip, such being very injurious to them. Although they require a great deal of

moisture in hot weather to make them flower freely, yet moisture of this sort hardens the surface of the soil and prevents their slender fibres from running to any extent. As the season advances the surface of the mould among the plants ought to be frequently stirred up and refreshed with watering, which greatly accelerates their growth. In the formation of the beds for the Spring plantation the plants ought to be sunk two or three inches below the level of the ground, or the beds sunk that depth, instead of their being raised six inches above the surface, which is too frequently done. Planting them in this manner is of the greatest importance to the future welfare of the plants, there being nothing so hurtful to them as the want of a proper supply of water in the Summer season. We would recommend to those who would wish to have a succession of fine large blooms in the Autumn, to have a bed ready for planting by the month of March, composed of good loam and rotten dung. To one barrow load of good rotten dung there ought to be six of loam added, or one of leaf mould to four of loam. If the above compost was laid in a ridge for two or three months previous to its being used, and exposed to the frost and frequently turned during that time, such would be attended with the most salutary effects. For this purpose good healthy cuttings which have been struck in the Autumn ought to be chosen. In all cases cuttings are preferable to layers or slips. The flowers they produce are frequently much larger and the plants more prolific than by any other means of propagation. The months of July, August, and September are the proper time to plant cuttings which are meant to flower in May and June following. After the month of June the blooms begin to decrease in size and beauty, if exposed to

the burning sun, unless some efficacious method be taken to keep them shaded or continually supplied with water. In order to have a plentiful supply of good flowers they ought to be planted in every corner throughout the garden. When a plant becomes exhausted and the flowers become diminutive in size the only way to renovate it is to separate it, and plant each small shoot separately, which will readily strike root. In the course of two months, if properly managed, each small shoot will become a healthy plant, and produce flowers larger in size than the original plant. From one large plant twenty or thirty small ones may be easily made. The proper time for transplanting them is in rainy weather. They may then be transferred from one part of the garden to the other with the greatest success.





The Royal Purple.

J. Freeman del.

W. Annan lith. 12 Gracechurch St.

Royal Purple Pansey was raised by Mr. Page, of Ches-hunt, Herts., who has raised several choice varieties. The present is commonly known by the name of Page's William IV., but there are no less than four varieties under that name. Therefore, in order to avoid mistakes, when Heartseases are sent for to any of the Florists, we have given it the present name. There is already a variety named Lee's Royal Purple, which is considered good in its kind, but not well shaped.

In the month of May, the Heartsease may be seen to the best advantage, as in that and the following months they are more beautiful than at any other time of the year. We have lately seen some of the principal collections in this neighbourhood, and cannot help admiring many of the varieties, especially those raised by Mr. Thompson, which, for beauty and magnificence, transcend any thing yet seen in the Heartsease way. His Iver Beauty, Horace, Napier, Cicero, Pomona, Ajax, with many others, stand pre-eminent. They who are in any way acquainted with the tribe, might almost point out a variety raised by this individual without making any inquiry. His sorts have all a fancied resemblance to each other. We have also seen flowers of John Bull, Allen's Adelaide, Mounjoy's Beauty of Ealing, and Rival, bloom in the highest perfection; also Page's William IV., or Royal Purple, and Hornsey Hero, grown to a great size, with many other dark sorts well worthy of notice. One cannot avoid being struck with the glowing richness and harmony of colour which is to be found among the dark varieties, which are now become

very numerous. To take the dark sorts in general, the greatest number of them approach nearer to perfection in shape than any of the other sorts, with the exception of some of their petals being occasionally undulated. As for the colours of those sorts, there is no Painter in existence, and probably never will, who can be able to give that richness of colour which is to be found among them. To compare the collections at present with those of only three years' standing, we find that those which were then held in the highest estimation, have now yielded their places to a younger progeny, which will, no doubt, be yet superseded by others still more beautiful. The few mentioned here, as possessing superior claims to merit, may secure information to futurity of what was then esteemed rare among this tribe. From the admirable writings of Loudon, we quote the following, which appeared seven years ago, concerning hybrid varieties of flowers.

“ The London Nurseries.

“ I have not been able to extend my walks beyond the limits of the London Nurseries, which do not present any thing very striking or novel. The display of forced flowers at Colville's is extremely brilliant, embracing Hyacinths, Jonquils, and other bulbous roots; with an extensive assortment of Amaryllidæ, seedling varieties, exhibiting all the diversified shades of colours and habit to be found in the parent stocks from which they have been procured. At Mr. Knight's a most beautiful plant of *Rhododendron arboreum* is in fine flower; the three varieties of this

interesting species now well known in this country, exhibit a sportiveness in nature which our hybridising cultivators are attempting to imitate, with what success time alone can determine. The ingenious theory of a worthy friend of ours, that nature is constantly producing new genera and species by the intermixture of those already existing, is in a great measure warranted by the productions of our gardens, which exhibit to the eye of the most experienced botanist, forms by which he has hitherto only been made acquainted by the introduction of plants from abroad, and which have been already distinguished as new species. How far the dogmas of certain learned persons, that these mules, like other mules in animal nature, will be capable of reproduction, except by closely allied affinities, are defeated by our present practice, of increase, we can only judge by careful attention to the present state of our collections. In these we have *Rhododendrons*, *Azalias*, *Kalmias*, &c. so intimately blended in every possible shape and feature, that it is already difficult to distinguish seedling varieties from well established species, and I may affirm the same thing of the hybrid productions from *Amaryllis*, *Nerine*, &c. obtained by the Hon. and Rev. W. Herbert, of Spofforth, and so ably illustrated by him on his work on the subject.”—(*Gardener’s Magazine*, Vol. IV.)

Since that time our gardens abound with numbers of new *Azalias*, *Rhodendrons*, *Calceolarias*, *Fuschsias*, *Roses*, *Mimuluses*, *Tulips*, *Pinks*, *Picotees*, *Auriculas*, with thousands of varieties of *Anemones*, *Ranunculeses*, *Dahlias*, and other double flowers. Some authors affirm that hybrid varieties do not produce perfect seeds, others say that they do. Concerning double flowers, we may offer the following remarks. A flower is termed double when it is furnished with appendages differing from what it has in its true

natural state, such as its stamens being transformed into petals, they are then termed corollaceous. Such are supposed to arise from an excess of nutriment, hence they are termed luxuriant or double flowers ; examples of this are to be found among Pinks, Roses, Camellias, Poppies, and even Azalias.

A flower of this description, when furnished with anthers and a pistil, is called *flos multiplicatus* or a semi-double flower. Such flowers may produce perfect seeds, whatever number of petals they may have. A semi-double flower, with its stamens all corollaceous, may produce seeds if it be furnished with a perfect pistil ; as it may be impregnated with the pollen from another variety. But if the stamens and pistil become both corollaceous, as in varieties of the Rose, *Ranunculus*, &c., such a flower will never produce perfect seeds ; therefore it is of no avail whatever to plant double varieties of the Stock or Wall flower among the single, in order to obtain double sorts. There are flowers, such as the *Cactus Mesembryanthemum*, &c. which may be mistaken for double or luxuriant flowers ; they may be easily discovered to be perfect flowers, as no part of the stamens or pistil is formed into petals.





Nonpareil

J. Freeman del.

W. Annan del. 12 Gracechurch St.

Var. Nonpareil, of the Pansey, was raised by Mr. Thompson. It is considered a first-rate flower; but we understand by Mr. Rogers that it is prone to variation at certain times of the year. In the months of April and May, a portion of the upper petals is pencilled with a beautiful red, but towards the autumn its flowers become nearly yellow, with a large dark eye. To avoid this, a plantation ought to be made in a shadowy part of the garden in the month of May, for plants that are intended to flower in the end of the year. We have also been informed by him, that var. Dutchess of Gloucester was raised by Mr. Thompson, and sent out under the name of Queen Adelaide. We do not know who he has to thank for changing its name, but it has been sold under both names for some years past. The same has also occurred with several others purchased from Mr. Thompson, such as var. Beauty of Ealing, Rival, and several others. We consider that if a florist purchase a new sort from any individual he is not justified in changing its name, let the plant cost what it may. We are therefore surprised to see such a system adopted by those who profess to be admirers of this tribe. It reminds us of the fable of the jackdaw who dressed himself up in the peacock's feathers, and went abroad among his brethren as a peacock; but he had not long commenced his career when one plucked a feather, and another plucked a feather from him, until, at last, he entirely lost his plumage, whereas he was discovered to be only the jackdaw.

We have lately seen numbers of new seedling varieties of Pansies, but the number of what is termed first-rate show-flowers is very limited. The appearance of var. John Bull

and a few others, renders it difficult for a florist to produce new sorts in any way equal to them. The only method we would recommend to those who may wish to become eminent in the production of fine sorts, is to save seeds only from such as are already considered good. For this purpose it would be advisable to select about twenty of the best varieties yet known, particularly those raised by Mr. Thompson or Mr. Rogers. Let them be planted in a bed of good compost, entirely away from any other inferior kinds: no plants should be admitted into this bed but those which produce large and good shaped flowers. By this means there is a much greater probability of getting fine sorts, than by saving seeds from those which are planted among inferior ones. If recourse be had to the method of impregnation practised by modern florists, the results may be more satisfactory. But nature has provided several curious methods, without the assistance of the florist, to bring forth an endless assemblage of new varieties of flowers annually.

To show the provision which nature makes for all her cares, we need only mention the following short account of the plant named *Valisneria Spiralis*, described in Stroud's Introduction to Botany, which bears its male and female flowers on different roots.

"This singular plant is wholly submersed, except the female flowers, which are furnished with an elastic spiral stem; this spiral when extended is from three to seven feet or more in length, and when the river either rises or falls it still allows the female flowers to float on its surface: the male flowers expand in their submersed situation on short scapes, which, when their anthers are ready to burst, detach themselves from the plant, and float on the surface of the water, where the currents bear them, or the winds propel them to the

female flowers." Dr. Darwin, in his *Botanic Garden*, has the following beautiful allusion to this circumstance.

As dash the waves on India's breezy strand,
 Her flushed cheek press'd upon her lily hand,
 Valisner sits, up-turns her tearful eyes,
 Calls her lost lover and upbraids the skies;
 For him she breathes the silent sigh forlorn,
 Each setting day; for him each rising morn.—
 "Bright orbs that light yon high ethereal plain,
 "Or bathe your radiant tresses in the main;
 "Pale moon that silverest o'er night's sable brow;
 "For ye were witness to his parting vow!
 "Ye shelving rocks, dark waves, and sounding shore,
 "Ye echoed sweet the tender words she swore!
 "Can stars or seas the sails of love retain?
 "O guide my wanderer to my arms again!"

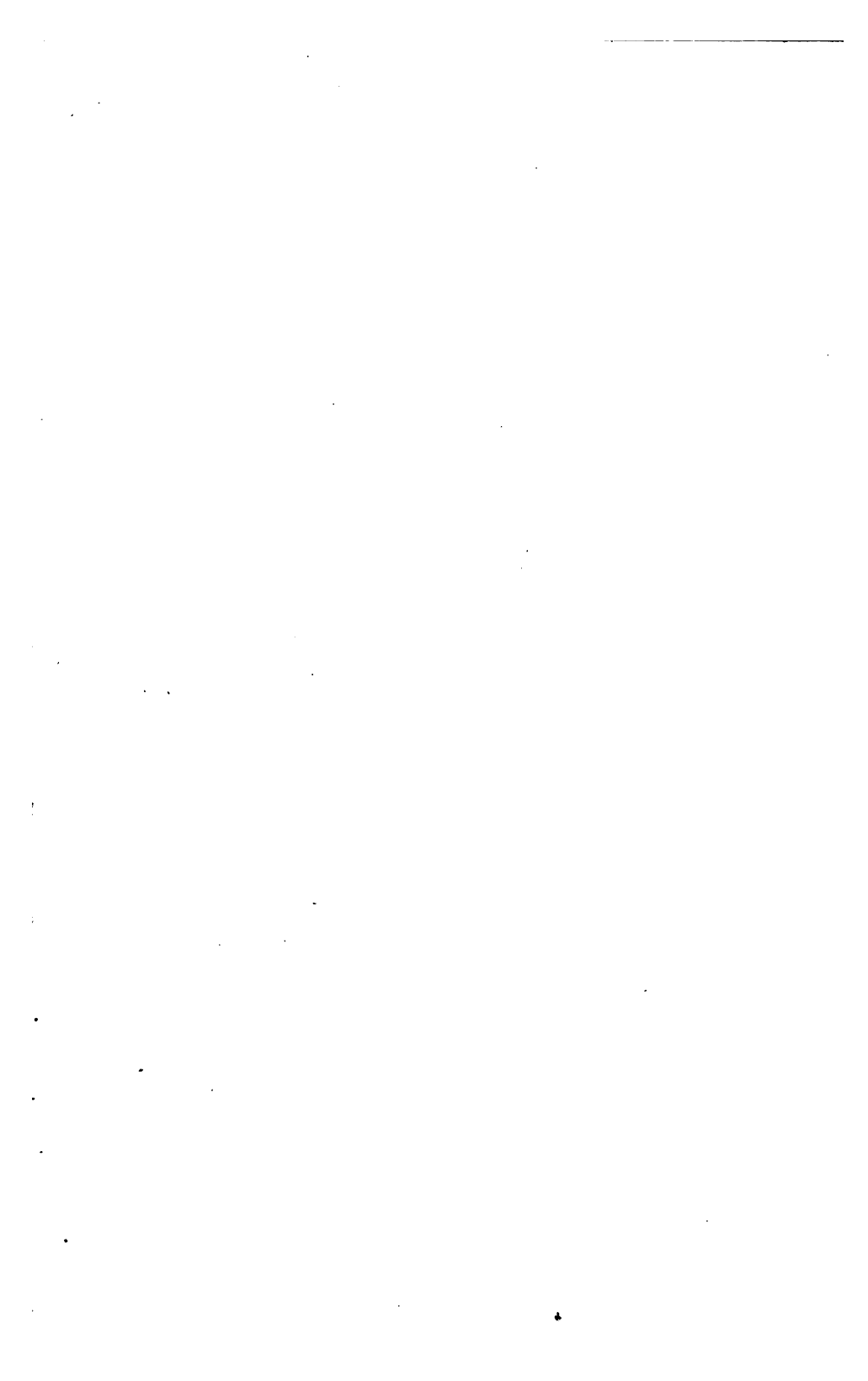
It is also probable that these plants may be impregnated with a smaller quantity of pollen than such as have both parts in the same flower; and in many kinds the pollen is produced in very great quantities, so that it would be almost impossible for any female flower to escape impregnation, if a male plant be in bloom at the same time near it.

Many flowers close in the night, or against rain, in order to protect their tender parts from the effects of moisture, which is injurious to impregnation. We also find, if there is a continuance of wet weather during the time of flowering of any kind of fruit tree, or field of corn, and the consequence is, so good a crop is not produced; and even aquatic plants, in general, raise themselves above the water to develop their flowers and perform their necessary functions; after which they withdraw their heads and ripen, and disperse their seeds under water. Theophrastus, speaking of the Lotus, says, "that it sinks its flowers gradually until

midnight, when it again begins to ascend, and by mid-day rises high above the water, where its beautiful flowers expand, and after that hour begins to descend as before, to emerge again on the following day." The plant, Lotus, meant by this writer, is supposed to be the *Nymphæa*.

In androgynous plants (such as produce both stamens and pistils, in different covers, on the same plant) many experiments have been made, and when proper care was taken the results have been favourable to the doctrine of the sexes. The leading experiment on unisexual plants, is that of the Leipsic and Berlin Palms, recorded by Professor Mylius as follows:—At Berlin there was, in the year 1750, a Palm Tree which had borne flowers and fruit for thirty years, but the fruit did not ripen, nor did the stones vegetate when sown; there was a male plant of the same species growing in a garden at Leipsic, from which a branch was produced when in bloom, and suspended over the female plant, which had the effect of fecundating the seeds of the female, although the distance it had been brought was about sixty English miles. This experiment was repeated the following year with the same success, but in a much greater proportion, the tree then producing about two thousand ripe fruit.

On the first of July will be published, Six of the Best Sorts of the Pansey, also Six on the first of August, which will include all the best varieties of the Pansey yet raised.





Lamb's Mountainer.

J. Freeman del.

W. Arman lith 12 Gracechurch St.

LAMB'S MOUNTAINEER.

This beautiful and interesting variety was raised by Mr. G. Lamb, of Malvern, Worcestershire, who is a very successful amateur, and was sent by him to Mr. Rogers, of Battersea, accompanied with a drawing and description. Mr. Lamb observes, that this beautiful flower grows to a large size, is perfectly round and flat, and was generally admired by all who saw it for the richness of its colours, and the fine velvety appearance of its petals. The splendid bronze in the lower petal makes it quite distinct from any sort we have yet seen, and we have no doubt it will prove a first rate show flower. Mr. Rogers informs us, that he was not able to flower it again in perfection during the season, the weather having been remarkably hot and dry, and the plants packed up for a week before they reached him. It was necessary too, to wash away the red clay from their roots, and this caused such a check, that they did not recover till the Autumn, but they are now flourishing luxuriantly. The Mountaineer is at present in the hands only of a few persons, and those mostly amateurs; but we feel confident that, when it becomes generally known, it will be a great favourite, as it is evidently of a good habit, and of a free growth.

We should recommend those who have not yet prepared their beds for the summer bloom to do so as soon as possible, and to choose a shady situation for the purpose, as we find

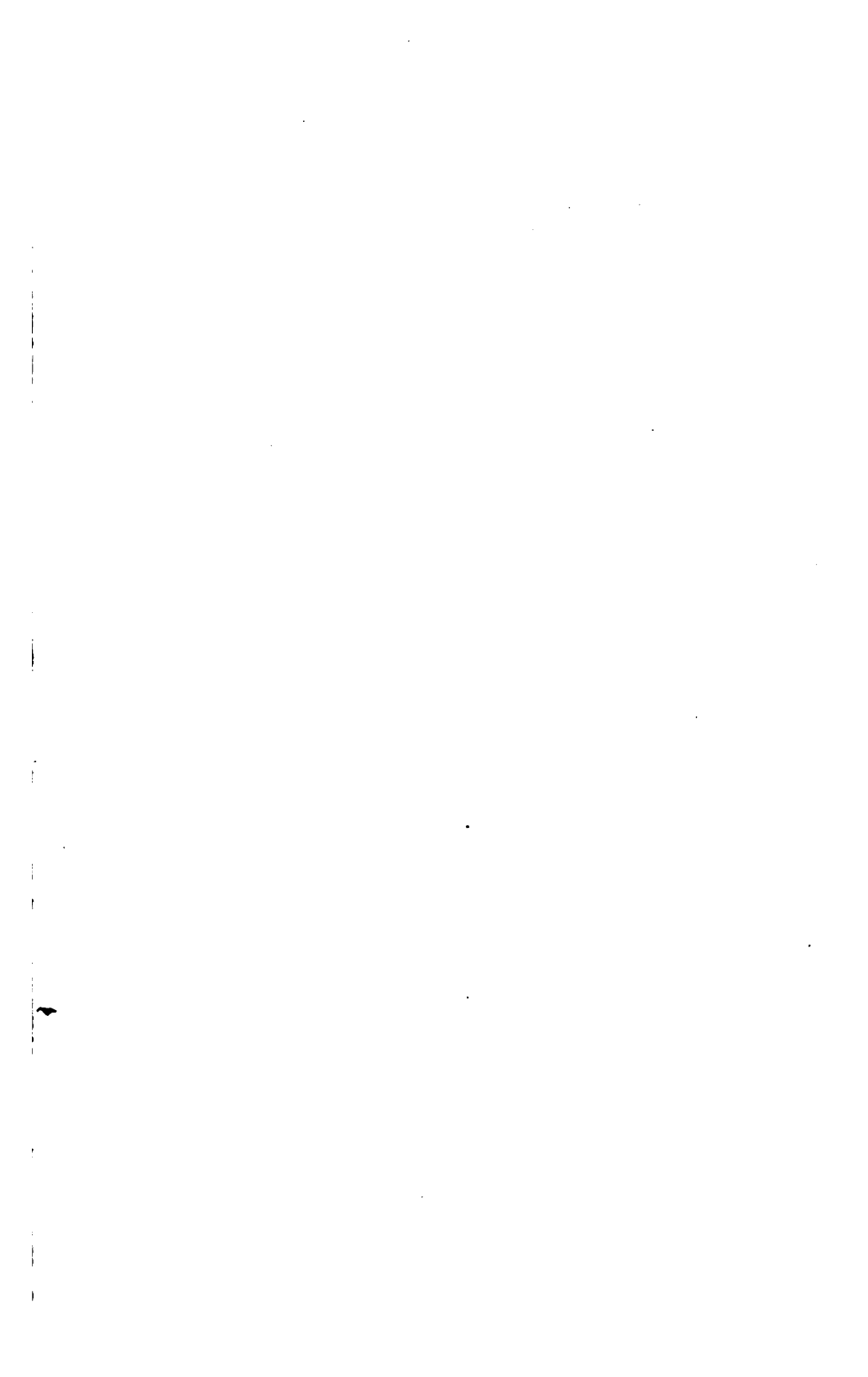
that a hot sun injures the flowers more than anything. Those who grow them for competition must be guided in matters of detail by the time at which they will be required to produce them ; and the flowers must be kept back, or forwarded, according to circumstances. In some Floricultural Societies, the shows take place only twice in the season, probably in June and September, and plants which are put in during this month will last that time, if treated with attention. But if persons wish to show them four times in the course of the year, they must keep a larger stock of plants, and form beds in various situations, and with different aspects. Cuttings struck in October last are now coming into flower, and will continue till June or July ; but after that they will gradually diminish in size, and the colours will change and appear exhausted.

New beds which were prepared during the winter should be occasionally turned over before they are planted ; and those which were planted in the autumn should have the mould carefully loosened with a small hoe, a frequent application of which greatly benefits the plants, and enables the grower to discover slugs, wire-worms, and grubs ; which are all highly destructive to this family of plants.

It is scarcely possible to find a situation in the garden which the sun never visits ; but we consider it best to select one in which the plants will have the morning sun, but lose it about noon. They will then have many hours of shade, and the advantage of refreshing dews, than which nothing can revive them more. It is not desirable to plant the flower near large trees for the sake of shade, because the branches of the trees would keep off the dew, and their roots would deprive the plants of nourishment below.

When the beds are in proper order, they should be filled with young healthy plants, those struck from cuttings being always preferable to mere slips, as they make the most bushy plants, and produce the finest flowers. It is better for amateurs, especially those who show only thirty or thirty-six, to have a pair, or even several of the best sorts, than to be ambitious of having a great variety; for we often find to our mortification, when we have only one of a favourite kind, that its bloom is either too early or too late for our show. Nor should they forget to have a few good flowers to spare, in order to replace those which have been injured in their stand; for, in spite of every precaution, some will be damaged in travelling, and others, if too much blown, will begin to close before the judges have placed them.

Those who wish to raise the Heartsease from seed, would find this a good time to commence their operations, provided a shady border is chosen for the purpose; or the seed may be sown in pots and boxes, if the quantity is small, and placed in a proper situation. Persons who have not time or patience enough to save the seed for themselves, must be very careful to procure it from a good cultivator, on whom they can thoroughly depend for having gathered it only from the best flowers. Every year, as it adds to the quality of our collections, makes it more difficult to raise any novelty which will surpass the sorts already in cultivation; and though pretty looking flowers may easily be produced, and people are generally partial to their own seedlings, it is no easy matter now to bring forward anything which will stand the test of competition, and be acknowledged as a flower of first rate quality.





Ives Hero.

J. Freeman del.

W. Arnan Lith. 12 Gracechurch St.

THE IVER HERO.

This beautiful and distinct variety was raised by Mr. Thomson, of Iver, to whom the cultivators of this lovely family are more indebted than to any other person. It is impossible to look over any popular list, or to examine any good collection, without being struck by the extraordinary number of fine sorts which have been raised by this fortunate individual, even without counting those which other persons have taken the credit of to themselves. Mr. Thomson informs us that our present flower is such a distinct and striking variety, that you may observe it at a considerable distance amongst the different sorts which surround it. It appears also to possess another good quality—that of being an early bloomer, which is partly the reason why we have figured it at this moment; for the season has been so unusually backward, that we have not yet been able to procure a good specimen of many kinds, with any of which we would gladly have embellished our number.

While we are on this topic, we will offer a few words of explanation to our readers. We know that it makes a work like ours more captivating, and perhaps more valuable, to figure only the newest and rarest flowers; but we have found by experience that such a practice is attended with many inconveniences. As soon as a new sort appears in the work, there is immediately a demand for it from all quarters, and nursery-men in the neighbourhood of London

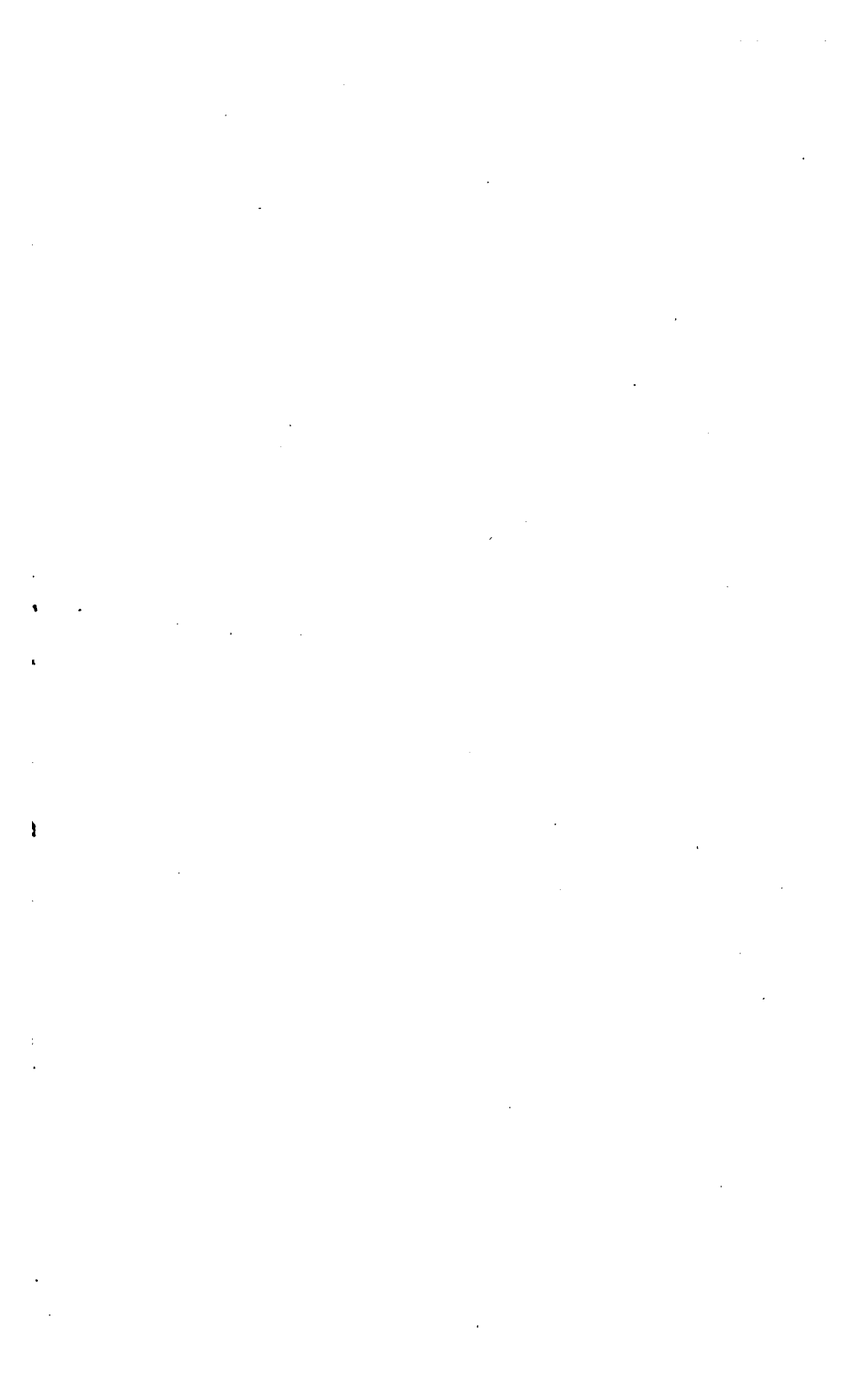
are applied to, to furnish it at any price. This often causes unnecessary expense and great disappointment to the customer, who is irritated at not being able to procure what has struck his fancy. No nursery-man of course has any objection to turn his plants into money; but, where there is but a single seedling to work upon, he cannot let it out in less than six or nine months, even with the most successful cultivation, so as to do anything like justice to himself; and with an unskilful or unfortunate cultivator, two seasons will not be more than sufficient for the purpose. Sometimes a grower is tempted to oblige a particular customer with a plant, but he only produces jealousy and displeasure in the rest, who see no reason why they should be denied the same indulgence. We think it right, therefore, to inform the public, that the present subject cannot be obtained under any circumstances until the autumn, the plant being at present very small. Indeed it has only been seen by a few persons; but they thought very highly of it, and Mr. Thomson has no doubt but what it will become a general favourite.

As the season for raising seedlings is now approaching, we hope those who wish to excel in this pleasing and interesting pursuit, and have a few leisure hours to bestow upon it, will attend to the suggestions which we presume to offer. Their chances of success would be greatly increased, if they would take the trouble to fertilize the flowers by an artificial process. And this is properly the business of the amateur; for a nursery-man, whose attention is distracted by so many occupations, has no time for such a purpose, but must be content to leave it to nature to perform her own offices, or trust to the insect tribe to carry the farina accidentally from one flower to another. The stock of the amateur, indeed, is far better suited to this work, than

that of the nursery-man ; for though inferior in quantity, it is, or ought to be, much more choice in quality, such as grow flowers for sale being obliged to keep many sorts contrary to their own judgment, in order to gratify the taste, or the want of it, of those who deal with them.

We are not ignorant, however, that the task we recommend is both difficult and tedious. The plants are so low in their habit of growth, that a person cannot work upon them without continual stooping, or even going down upon his knees. We should advise those, who wish to try the experiment, and to know the result of their practice, first to select six or eight of the largest and best shaped flowers, and to put them into pots, in which they could be removed into any convenient situation, and brought close to the eye of the operator. Mark the flowers you intend to fertilize with a small piece of matting or thread, tied loosely round each, so as not to interfere with the flow of its juices, and keep a record of the different sorts with which you have crossed them. If the operation is new to you, it will be as well, previously, to dissect a few common flowers in different stages of their growth, in order to become acquainted with their parts, and the different symptoms of their maturity. When the flower begins to expand, you must of course divest it of its male organs, or it would impregnate itself, and all your labour would be lost. This you would soon learn to do, if you would cut open a few flowers when they are partially blown, and observe the five anthers, which when ripe shed their powder, called the pollen, on the stigma, and so fertilize the flower. These anthers therefore must be carefully extracted before maturity, so as not to injure the stigma, which is to be powdered with the fertilizing dust of another flower. A small pair of tweezers will be useful for the first operation, and a soft brush of camels'

hair for the other. Soon after the farina has been put upon the stigma, you will observe the seed vessel begin to swell gradually, and in the course of a fortnight you will be in fresh danger of having your labour thrown away, for in hot weather the pods will often burst very suddenly, and scatter the seed in all directions. In order to prevent this, tie a small piece of crape or gauze about the pod, leaving it loose enough to allow room for the vessel to swell, but making sure of catching the seed whenever it is ejected. Sow the seed in a separate pot, with a distinct mark to it, that you may learn by the union of what plants to produce the finest flowers. Put them, when strong enough, into a shady situation, and some will show bloom in the ensuing autumn so as to enable you to form a judgment of their merits. And when you have acquired more experience, forget not to furnish us with any useful remarks that may occur to you, for the benefit of others.



THOMPSON'S KING.

This magnificent variety was raised by Mr. Thompson, of Iver, in the Autumn of the year 1835; and, in his opinion, it is the most splendid specimen of the Heartsease that has yet been offered to the public. It is not certain from what plant the seed which produced it had been gathered; but, if we may judge from its appearance, it is a lineal descendant from "John Bull," and it is certain that since Mr. Thompson grew that flower, his seedlings have been greatly superior in shape and substance to what they ever were before. Whether the "King" will prove a better flower than "John Bull" or no, is a matter of some doubt. Its chief advantage appears to us to be in size; but the amateur had better grow them both together in the same soil, and with the same treatment, and then their comparative merits will soon become apparent. The distinguishing character of the King is, that it has a white margin round the middle petals, and, though, like its probable ancestor, it wants a better eye, it is a flower that will always command a place in every stand. Upon the whole we cannot help congratulating Mr. Thompson on having raised so fine a flower, or praising his loyalty for having so named it. We have seen some seedlings in his bed this Spring of a very distinct and striking character, many of which we propose to figure, as we believe they will prove valuable acquisitions to the lovers of this flower. Our present drawing was taken from the choice collection of Messrs. Allen and Rogers, of Battersea.

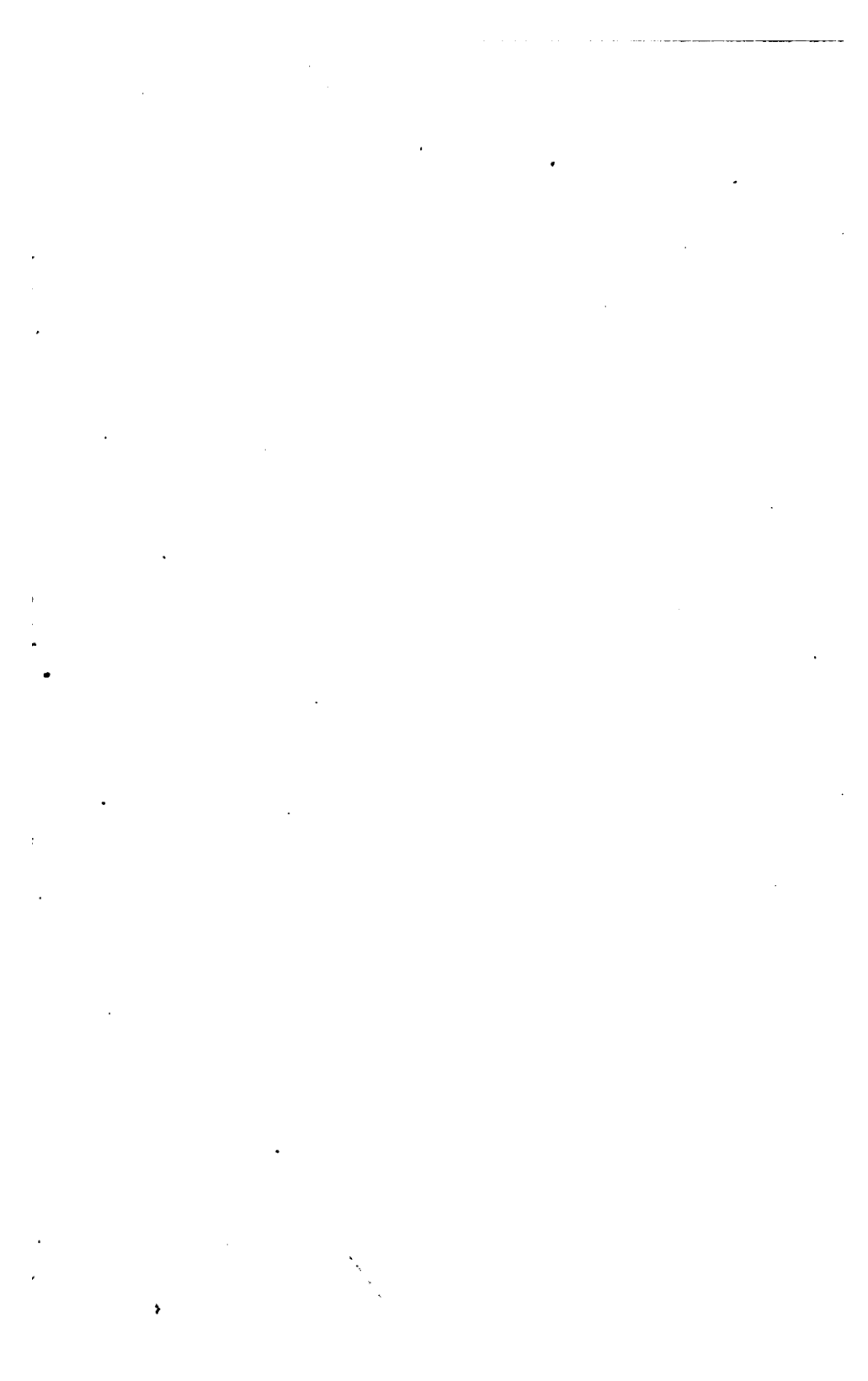
As no one can hope to maintain a good collection of the various sorts of Heartsease, unless he understands how to propagate them successfully, we have taken considerable pains to ascertain, and to compare the different methods, which are practised in different places. Of course we cannot hope to lay down rules, which every one will approve of; but if we can suggest anything that will assist the progress, or prevent the disappointment, of those who have not had much experience in the fancy, we shall be satisfied to think that our little work has had the effect it was intended to produce. Not that the difficulty is confined to them, for we have known practical men threaten to give up the cultivation of this beautiful and interesting family, because they could not multiply them with success; and if we may judge from the long ugly plants, which Nurserymen frequently send us, even they might condescend to profit by our remarks.

Now, the method to be adopted depends entirely on the season of the year in which the cuttings are taken. We consider the best time that private individuals can choose, is about the middle, or the end of July; but then a shady situation must be selected for the purpose, or else the cuttings must be artificially shaded, and the cover taken off as soon as the sun has left them. They should then be sprinkled over the top with water, poured through a fine rose, which will fall upon them like a gentle rain. There are many opinions about the proper mode of taking cuttings, which we do not think it necessary to mention, preferring to lay before our readers some hints, which are the results of our own experience. People in general are far too fond of putting in long cuttings, with the hope of obtaining large plants in the shortest possible space of time. But there is no real economy in such a mode of proceeding.

In the first place it takes a greater length of time to allow the shoots to grow to the length required, and when they have done so, they are apt to become hollow in the middle, in which case they are very unlikely to put out roots at all. Besides, if the cuttings be large, they must either be put a long way into the ground, or else have a long top exposed to the sun and weather, so that the plants, if they ever become upright, run up into tall, awkward, unsightly things, which leave the unfortunate grower only the choice between three evils. Either he must put them deep into the ground, or he must prop them with a stick, or he must lay them in a slanting direction—all of which are exceedingly objectionable. If he puts them deep into the ground, in order to hide the long naked stem, the roots will, perhaps, soon get below the soil prepared for them, and so be deprived of the nourishment they demand. If he puts sticks to them, to prevent them from being broken by the wind, they not only give additional trouble, but present a most unsightly appearance. If he lays them slanting in the ground, the head will be in one part of the bed, and the root in another, though no one can guess exactly where; and the first time the hoe is used, the operator will be fortunate indeed if he does not injure the plant in some part or other; especially if one man should happen to plant them, and another afterwards to have the management of them.

But it is possible to avoid all these inconveniences. If a fine seedling should make its appearance, the owner should not wait for any particular season before he begins to propagate it, for fear it should be lost altogether, which, unhappily, has too often happened. As soon as the shoots are long enough, he should endeavour to strike a few of them, that he may not risk every thing on a single plant; but as the cuttings cannot in such a case be numerous,

they may be planted round the edge of a pot, and covered with a hand-glass. After the first week or two, the glass should be taken off occasionally, that the damp may be able to escape; for the young shoots are so full of juice when taken that there is danger of their rotting, if air is not allowed them. One advantage of having them in a pot is, that you can remove them from time to time into any situation that you please, and after a little while a gradual exposure to the sun will be of service to them. But we propose to pursue this subject further in our next number, as it is one of essential moment; and we shall feel obliged by any practical information, with which our readers may be pleased to furnish us.





Masterpiece.

J. Freeman del.

W. Annan. Lith. 12. Gracechurch St.

VARIETY MASTERPIECE.

This splendid and distinct variety was raised by Mr. Page, of Cheshunt, to whom the public are indebted for several first-rate seedlings, amongst which we consider this to be the best that has yet been brought out. Nothing, indeed, can well surpass it, either in point of size or shape ; for we have seen the flower as large, and as round, and as flat as a crown-piece ; and there is plenty of substance in the petals. The upper petals are of a highly rich and velvet-like crimson, with a yellowish or bronze margin round the top. They are sometimes a little inclined to curl backward, but when the flower is laid upon a flat surface it shows to great advantage. When it has obtained sufficient publicity, it is sure to become a general favourite, and will be a conspicuous object in every stand. The stock was purchased by Messrs. Allen and Rogers, of Battersea, who are now sending it out to the public. They represent it as a plant of strong habit, very free in flowering, and altogether worthy a place in every choice collection.

We propose now to continue the observations, which we commenced in our last number, as to the best mode of propagating the Heartsease ; and we cannot do a more acceptable service to the public, for the success of a collection must depend mainly upon this process. We do not share in the fears that have been expressed, that we shall make the public so knowing, that they will not only strike their own plants, but also supply their neighbours, to the injury of the trade. It is no disadvantage to a nursery-man

for a private person to amuse himself with striking a few cuttings; for though it may enable him to keep up his old sorts, he will naturally, as he grows more and more fond of the fancy, purchase the new and beautiful kinds, which are annually raised from seed. Neither is there any objection to his giving away a few plants to his friends: for it helps to extend the fancy, and those who began with a stock that cost them nothing, may soon become purchasers in their turn. All parties must remember, that if they wish to keep pace with the improvements that are continually going on, they must be always adding a few of the newest and best sorts to their collection; for the flower may still be said to be almost in its infancy, and what we admire one year is almost sure to be surpassed the next. We think, indeed, that novelty is a point to which the judges ought to pay more attention than they generally do, provided, of course, that all other good qualities accompany it. And in this respect, as indeed in every other in which this flower is concerned, the amateur need not fear to compete with the nursery-man, for if his stock is smaller, his attention is probably less divided.

As we dwelt at some length in our last on the inconvenience, and frequent disappointment, attending the habit of putting in large pieces as cuttings, we will now point out how we have succeeded in various ways in the use of small ones. If they are intended to be struck under hand glasses, there should be a shady situation chosen for them. Then prepare some finely sifted mould, consisting of good loam and leaf mould, if it can be procured, to which add about one fourth-part of road sand, or river sand. Perhaps the best plan is to add the ingredients together first, and sift them afterwards, as this will mix them more thoroughly than any other method. Then make a bed of not less than

three inches deep, well pressed down with the hand or spade, and leave a margin of two inches beyond the space which the cuttings are to occupy. The earth should be watered with a fine rosed watering pot a few hours before it is planted, in order that the cuttings may be fixed more firmly in the ground. You will of course be prepared with some number-sticks, about three inches long and not more than half an inch wide, to mark every sort as you put it in. You may begin numbering from either side, provided you always keep to the same way; but it is usual to commence counting from the left corner of the glass, to put the stick down first, and then the cuttings in succession behind it, till the next stick marks the commencement of a fresh variety. Leave about half an inch between the rows, and an inch between the cuttings in each row. The cuttings themselves should be about two inches long, taken off just below a joint, and then should be inserted about an inch deep, taking special care not to make the hole deeper than you require it, or else to fill it well in afterwards, that the bottom of the cutting may come immediately in contact with the soil, instead of being suspended in the air with a hole full of stagnant water below it. Press the soil gently but firmly round the cuttings, and sprinkle them lightly over with water. Then put the glass on, and when the sun shines powerfully let them be shaded with a mat till its strength is gone by. They will not require much water, the shoots being of a moist substance themselves; and if they are much wetted, or deprived entirely of the sun, they will be in danger of suffering from damp. After they have been in about a fortnight, the glass might be occasionally removed at night for the sake of catching the refreshing dews, and replaced in the morning. When you perceive them beginning to grow, and the tops have extended them-

selves, pinch off the extreme points of them, and they will make snug bushy plants. Even if they have not rooted, which is sometimes the case after they begin to grow, this practice of pinching off the top will help to check the rising of the sap, and cause the roots to protrude earlier than they would otherwise have done. Those who have no hand glasses, or who have more cuttings to strike than their glasses will contain, must prepare a shady border in the manner already described, and cover it with a mat, which may be removed at night for the advantage of the dews, but the shade must be renewed by nine or ten o'clock in the morning, or all the previous labour will be thrown away.

There is another piece of advice, for which we think the beginner will be grateful, and that relates to the worms and insects, which he will often find very troublesome among his cuttings. If you are annoyed by worms, procure half a bushel of stone lime, and put it into a tub with about 12 gallons of water. When it is slacked, stir it occasionally; then let it settle till it is quite clear. After freeing the water from the scum that rises to the top, sprinkle the cuttings all over with it in the evening, about dusk, as then the worms will be either on the surface, or very near it. If one watering is not sufficient, it must be repeated in a few days; and it would benefit not only cuttings, but rooted plants in your beds, destroying hundreds of slugs and grubs, especially if done on a moist evening, when they are most numerous and early in their appearance.



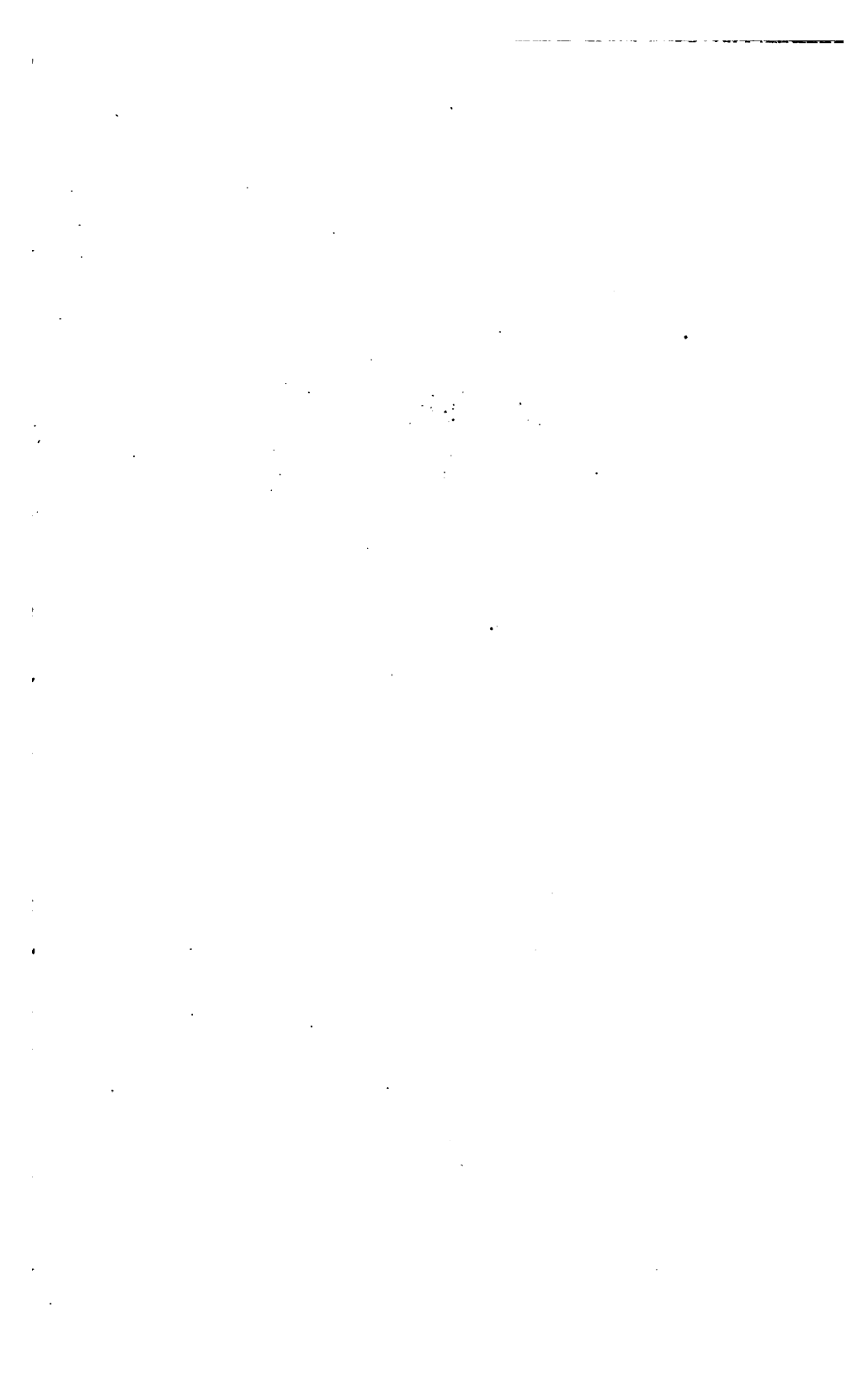
VARIETY INCOMPARABLE.

This splendid variety was raised by Mr. Smith, of Walham Green, who has raised several other good varieties this last season. This splendid variety may be numbered among our few first-rate sorts; it is very distinct in its habit and character from any other, and shines so conspicuously among the rest that it may be seen at some distance, and it has been greatly admired by every one who saw it. We understand Mr. Rogers, of Eaton Square, Pimlico, and Battersea, has purchased the whole stock of it, which being very limited, it cannot be sent out until the spring; and we are well assured from the number of good sorts he already possesses, he would not have purchased it, if he was not convinced it was a first rate sort. He has also purchased several other good ones which will appear in the following numbers.

We have lately received some information from a country correspondent relating to a new mode of propagating the Pansey; and as we cannot be too well informed upon the subject, we beg to lay the particulars before our readers, who, out of a number of different plans, will certainly succeed with some; and as this is the most critical time to perform it, great care and caution is necessary; for if the cuttings are covered or shaded too much, they are

very liable to go off; and the system we are about to recommend is one means of preventing them, which is by placing common flat tiles in the ground about three inches asunder, and putting the cuttings close by the side of them; these tiles are easily obtained, but those who wish to try the experiment could have some made half the usual size. They are generally made six inches wide, nine or ten long, and half an inch thick; but by applying to any tile maker, they could be made three inches wide, and the usual length and width would be sufficiently wide enough for the cuttings, sinking them in the ground about two inches and a half, and placing the cuttings close by the side of them on each side, and the tiles three inches asunder, which will allow sufficient room for cleaning between them. We find generally cuttings strike sooner and better by the side of a pot than any other way, but they must be watched occasionally, that the mould do not sink or dry away from the tiles; for if so, the mould must be pressed firm against them. The cuttings must be prepared as before described, and a shady situation chosen for them. We beg to remind our readers it is time to begin to prepare the beds for Autumn planting; those who intend to bestow some good fresh loam on them, which would be greatly to their advantage, should procure it as soon as convenient, for the purpose of sweetening it by the time it is wanted, by laying it in a ridge, mixed with some leaf mould if possible, or very rotten dung, and some river or road sand; and by mixing them well together and turning them over occasionally. It will greatly benefit the plants, and you will be likely to discover a number of wire worms, which are frequently to be found amongst fresh turfy loam, and which are very destructive

among the Heartsease. Beds should be prepared also ready to receive the seedling Heartsease which were sown some time since. They should be pricked out when they begin to get a few leaves large enough to hold them by, or about an inch high, and planted about four inches square, which will allow room to clean them, and the plants will grow stronger and will not be liable to damp off. No person, however experienced, can sow the seed to such a nicety, but what many will come in clusters, and you will not know which to pull out; and where there are a number together some will damp off, and if you attempt to thin them out, you will be as likely to take out the good as the bad; but if want of ground is an objection they might be planted half the distance, until they came into flower: and though probably you would have occasion to thin them more than you would wish. The seed pods require very often watching now, or they will burst, and if they have not been covered as described before, you will perceive the pods turn brown when the seed is ripe. You should take the precaution to examine the pod before you gather it, for if you gather the pod before the seed is brown in the inside, it will not grow, as the seed has not arrived at maturity. As a precaution against this, if you were to press the end of the pod with your thumb gently, it would open sufficiently for you to see if the seed was ripe before you gather it; and if it is not ripe, it will not injure the seed, and you will be able to form an idea when it will be ready.





Enterprise

J. Freeman del.

W. Annan lith. 12 Gracechurch St.

VARIETY ENTERPRISE.

This beautiful and interesting variety was raised by Mr. Thomson, of Iver, in the summer of 1836. It was rather late before it flowered; consequently it was not seen by many last season, but every one who saw it was most anxious to have it. It was but a weakly plant and did not produce many shoots; therefore it is only in the hands of a very few at present, and is rather a slow grower, so that the stock of this desirable variety is at present very limited. It possesses the most beautiful black eyes of any one yet raised. We should consider it a seedling from variety Nonpareil, as it resembles it so much in size and shape, and it comes in during the early part of the season with a few purplish lines in the upper petals, which disappear when the weather becomes hot and dry. It was only exhibited in a few boxes this summer, and was generally admired; and we have no doubt but there will be more orders for it at 5s. each, than there will be plants to supply. We have seen many others raised from Nonpareil, but not one worth cultivating; and those from the King were mostly of the same description.

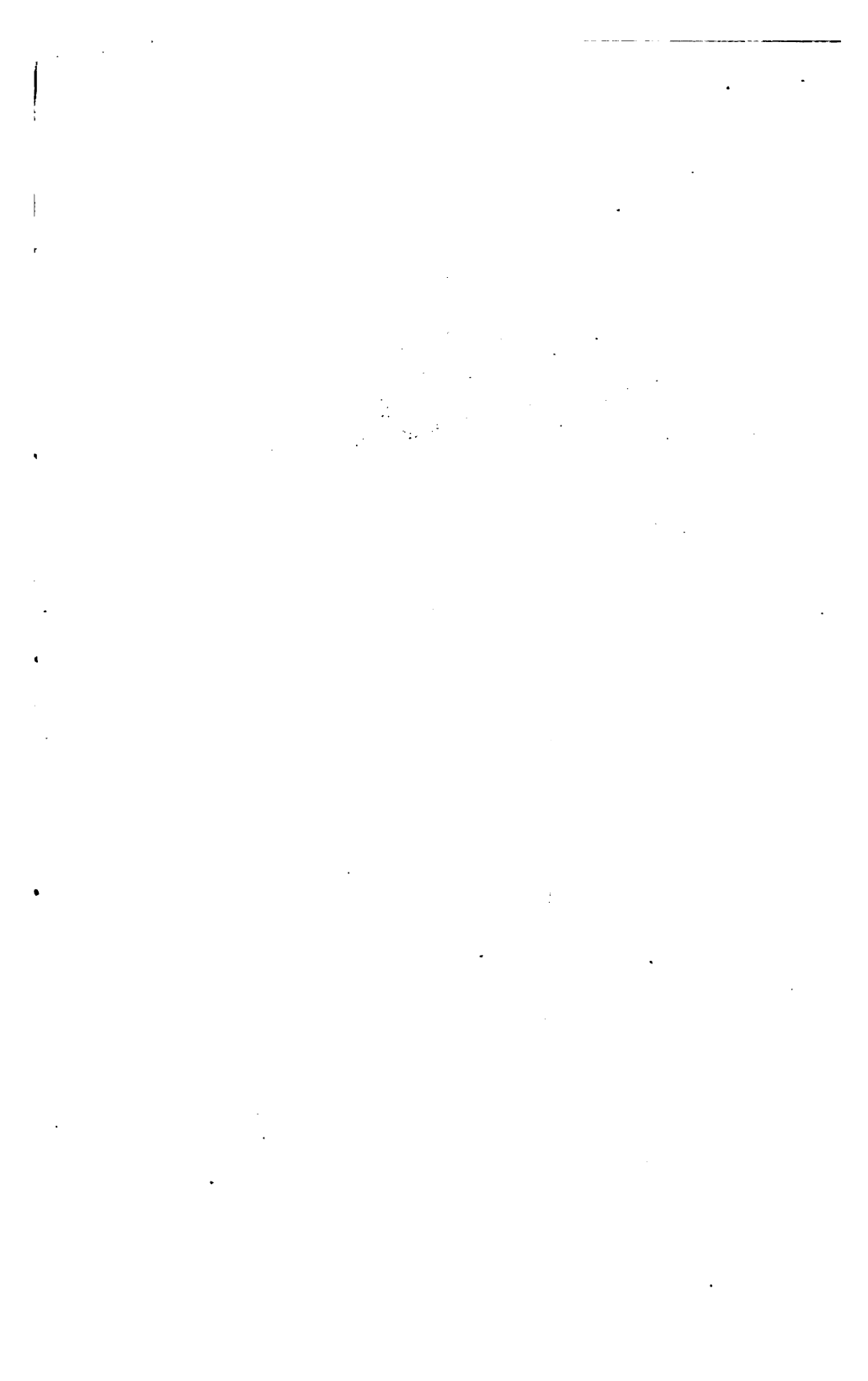
As several Ladies have expressed a great wish to cultivate this beautiful and interesting family, if they were not so

diminutive that they cannot see their beauties without inconvenience and injuring their dresses, and as we wish to extend the numbers of admirers as much as possible, we beg to point out a remedy that will enable them to view them without injury or inconvenience. This is by having a brick pit built to any height required. The brick work would not require to be more than four inches thick, with a few piers of nine inches square occasionally as a support. It would be necessary also to build in with the brick work on each side two or three oak posts as a support to the brick work, and one at each end, level with the top of the brick work, which the top plate of wood must be fastened to, in order to keep it firm. If the brick work is intended to be three feet high, which we should consider a good height, the oak posts should be let in the ground one and a half foot lower, and with a good spur at the bottom. It would keep the brick work much safer, and the posts should be well rammed down, to keep them quite firm. The plates of wood to go round on the top should be four inches wide, and three inches deep; and if it be intended to cover them also, the pit should be placed to catch the morning sun, then one half of the canvas could be up, and the plants receive the benefit of the air; and both sides should be up as soon as the heat of the sun declines, to let the plants have the benefit of the refreshing dews, which nourish them greatly, and should not be let down in damp or dull weather; for if the plants were covered much, it would cause them to draw up weakly, and would not produce so many, nor so large flowers. If it should be intended to cover the bed with iron rods, they should be made to screw into the top plate, and as a security against wind, there should be an iron rod along the top with holes in it,

to screw each cross iron into, and long enough to go down each end to screw into the post, to which the end plate is fastened. Should the bed be very long, it might require one support in the middle. We admit this would not look well in the middle of a lady's or gentleman's flower garden; but any person who wishes to excel in the cultivation of this interesting family may find some suitable situation for its erection, as it would enable any one to see the beauties of them better; and if it was convenient to procure some good turfy loam and leaf mould, or rotten wood, to put into the bottom of the pit in a rough state, this would keep a good drainage to the plants, and encourage them greatly; but if those cannot be easily obtained, the pit might be filled up till within eighteen inches of the top with either broken pots, or clinkers, or any thing of the kind that would make a good drainage, and the compost should be prepared as before described. As the season is fast approaching for making fresh plantations, we have inserted the names of most of the best sorts that are to be had at present. We consider it useless to insert a number of sorts which are not worth showing, or sorts which no one has to sell at present, for it only adds to expense and disappointment. It would be difficult to pick out fifty sorts, which would please every one, or probably any one, as the choice of flowers depends entirely on fancy; but we have selected those which have proved themselves worth cultivating until better are found to replace them.

LIST OF CHOICE SORTS.

Brennan's Queen of Diamonds	Gaines's Brutus
—— Duke of Northum-	Hollis's Maid of the Mill
berland	Hogg's Lady Peel
Bridges's Columbine	King's Rainbow
Cooper's King of Oude	Marshall's Reform
Mountjoy's Beauty of Ealing	Thomson's King
—— Hecuba	—— Horace
Page's Achilles	—— Enterprise
—— Duke of Marlborough	—— Diana Superba
—— Immutabilis	—— Frogmore Beauty
—— Enchantress	—— Lilac Perfection
—— Masterpiece	—— Lord Glamis
—— Royal Purple	—— Nonpareil
—— Hornsey Hero	—— Pomona
Potter's Countess of Liverpool	—— Ditto Superba
—— Josephine	—— Purpurea Elegans
Richardson's Queen Adelaide	—— Theresa
Rogers's Minerva	—— Venosa
—— John Bull	—— Desdemona
—— Miss Schutz	—— Lady Grenville
—— Flora	—— Cicero
—— Rival Yellow	—— Crocea Superba
—— Juno	—— Prince Eugene
—— Cecilia	Wild's Defiance
Scott's Helen	Wilmer's Shakspeare
Smith's Incomparable	





Duke of Marlborough

J. Freeman del

W. Hannan lith. H. G. Cresschurch sc

VARIETY DUKE OF MARLBOROUGH.

This splendid variety was raised by Mr. T. Page, of Cheshunt, Herts, in the Autumn of 1836 ; and it may truly be said to be the best of this class of flowers. The stock was so limited, and its general appearance so promising, that it was not allowed to flower publicly before the following Spring. It being of a fine free habit of growth, and there being several fine plants in full bloom, it made a splendid appearance ; several persons saw it, and it began to be rumoured about amongst the admirers of this beautiful family, who were all anxious to have it as soon as possible. But we understand the whole stock was offered to Mr. Rogers, of Eaton Square and Battersea Nurseries, and when he saw it possessed all the properties of a first-rate and long standing flower, he immediately purchased the whole stock, and he proposes to let it out this Autumn at five shillings per plant. The flower is of a fine round shape, and of good substance ; the four upper petals nearly form a circle, without the lower one ; the colour is of a beautiful velvety purple, with a fine yellow centre and a good eye, with a broad margin round the bottom petals. It is of a fine strong healthy habit, and a free bloomer, and one that will command a place in every stand as soon as it becomes generally known, and we have no hesitation in thinking it is the best Mr. Page ever raised.

As this month requires the greatest attendance on the Heartsease, and we have still a number of applications from different parties for information, we consider we can-

not do better than to state what we believe may be of service to the cultivators generally ; particularly as new admirers are constantly starting up, who wish to become acquainted with every circumstance attending them. In regard to the enquiries about the seed sown in July last, we should consider the seedlings large to be pricked out into stone pots, when they become large enough to hold them by the leaves. They should be re-planted half an inch asunder in stone pots of any convenient size, and if the plants do not become large enough to be planted into beds, they had better remain in the pots until early in Spring. The plants should be an inch high, with leaves an inch long, before they are planted in the ground, and should then be planted four inches asunder each way. This size we should consider they would attain to by the end of the present month. If they are planted very late they frequently do not become sufficiently established to stand the winter, and they are very liable to be pulled by the worms and the frost out of the ground, if the roots do not have sufficient hold. If there is a great quantity sown, it probably would take up too much room and time, but if the seed is from the finest sorts, a three-light frame might be used, placed on any hard bottom, with cinder ashes under the pots to keep down the worms, which are too frequently found to be very troublesome ; and a three-light frame would hold many thousands and would not require any other protection than a mat or some straw in very severe weather, and opened every day to dry the damp out ; and the frame should be tilted up at the back all night after they have taken root in the pots, to keep them from drawing up weak, and making them tender ; but care must be taken to secure the lights from blowing off, and the hods intended to receive the plants in Spring should be turned.

up as rough as possible into a ridge, to sweeten by the frost; and if the mould was turned over in frosty weather, it would be likely to destroy and discover many insects, very destructive among the Heartsease. Those who have not planted their beds for the Spring blooming, should do so any time this month with young plants lately struck from cuttings, if possible, as we always find them make the best and most bushy plants, and produce the largest flowers. Although we so often recommend young plants, and removing twice in the season to supply a succession of good flowers, still we find many so much afraid of removing them that they remain in the same situation, until the plants are quite exhausted, and have not strength to produce good flowers. It is only from young plants, and with few flowers on them, that large flowers can be obtained.

Where the Floricultural Shows take place three or four times in the season, it requires several beds, and in different situations, to produce good flowers; but it would be well if societies were to decline offering prizes for Heartsease in the very hot weather, as they cannot be shown with satisfaction to the spectators, or credit to the exhibitors, and it is only giving prizes for bad productions. We should advise those, whose soil is very wet and cold in winter, to put their best sorts in pots; for too much wet is very likely to rot some of the most tender sorts. A one-light frame would hold from 100 to 150; plants in large, 60 pots, which would be large enough until the severity of the winter was over; but if it was intended to grow them in pots, they must be shifted in larger pots, as occasion requires. This is also a very good time to put in cuttings of any choice sorts under hand glasses in a warm situation. The cuttings should be made about two inches long and inserted about one inch in the soil, and about two inches between the rows,

to admit of weeding, after they have been in a short time. The glasses should be taken off occasionally to dry the damp out, otherwise they are very likely to rot in the ground. They probably will be rooted sufficiently by the spring to be removed into the beds prepared for summer blooming. No time should be lost now in planting out young plants into the beds prepared for them; and it would be advisable to plant two of each of the best sorts, to ensure a good bloom at the principal time you want them; for we have frequently seen the difficulty of making up the number of perfect and distinct sorts out of twice the number of flowers; and it is always advisable to have several flowers to spare to replace any one which might be injured by travelling.





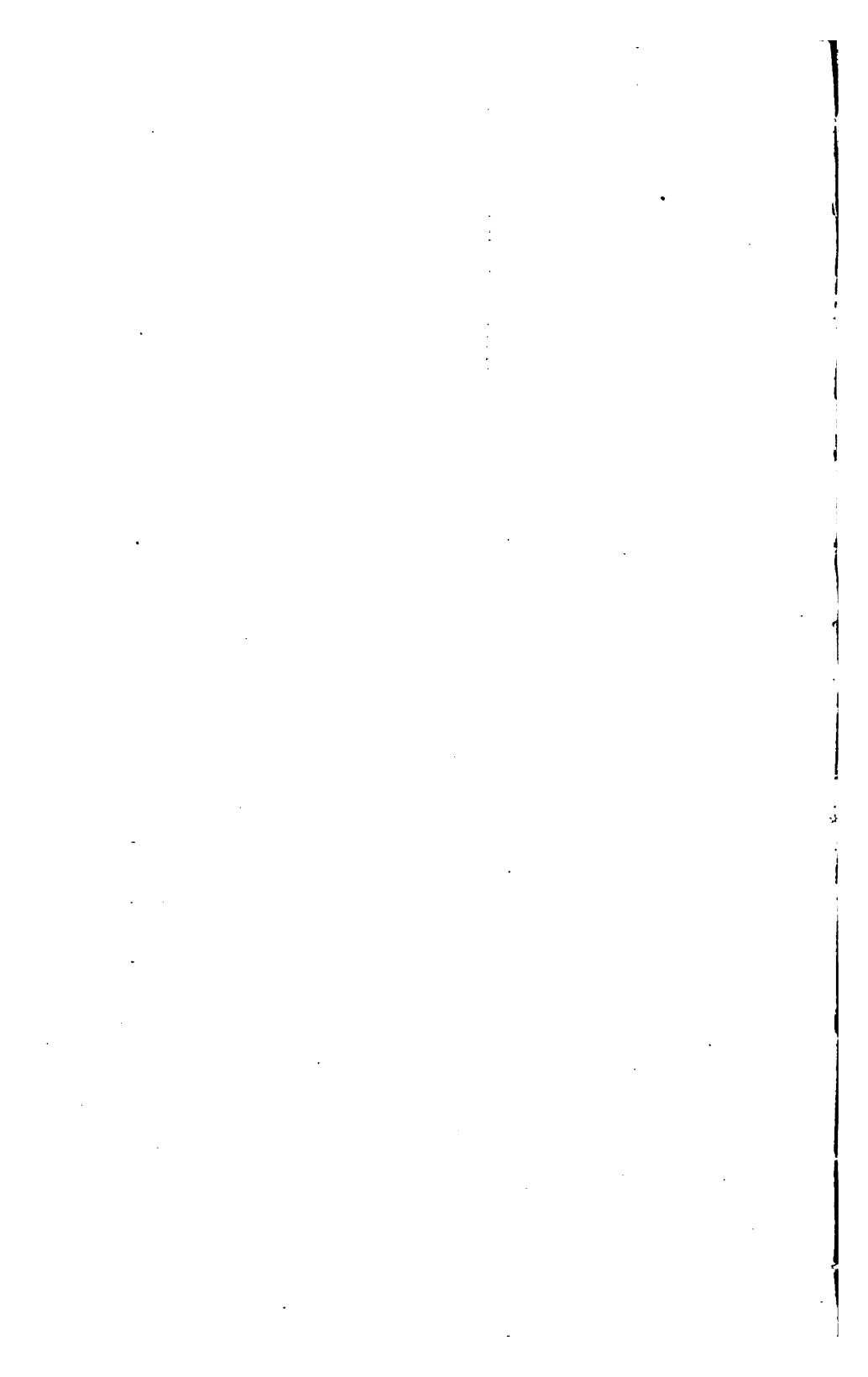
Thompson's Victoria?

J. Freeman del

W. Annan lith, 12, Greenchurch St

VARIETY QUEEN VICTORIA.

This most beautiful variety was raised by Mr. T. Thomson, of Iver, which flowered in May last; and so great has been the attraction of this flower that every one who saw it would have given a high price for a plant, if it had been possible to obtain one. This beautiful variety is so very distinct that every admirer of this interesting family would wish to have it in his collection. There appears to be a new branch of this family this year; for several have been raised in the same way by different persons, of the same coloured ground, and marked similar to it, but not any one equal to it: the white ground is very clear, the upper petals are of a rich peuce or violet colour, with a good proportion of margin round the other petals; it grows to a good size, with a fine healthy appearance, and we think it fully entitled to the name of the Queen of Pansies. We consider it the handsomest and most distinct light coloured flower Mr. Thomson has raised. The stock of this fine variety is at present very limited, it not being in the hands of any nurseryman at present, and we are not certain whether it will be let out this Autumn at any price; if it is, it probably may be with several other new seedlings not yet out, to form a new collection.







J. Freeman, del

W. Annan lith 12 Gracechurch St

Corinne.

VARIETY CORINNE.

This splendid variety was raised by Mr. Thomson, of Iver, and it may be truly said to be equal to any one yet raised. It was raised in the Autumn of last year, flowered in May last, and has continued more or less ever since. It appears to possess all the good properties of a first-rate show flower. Its upper petals are of a fine light velvety purple of good substance, a beautiful eye, and a good and regular margin nearly round. It has only been let out this Autumn to a few, with several other new and fine sorts. It is a very fine healthy grower, so that we may reasonably expect there will be a good stock of it in a short time; for it is so striking when in flower that every cultivator should have it in his collection. Mr. Thomson is not certain what this was raised from; nor do there appear to be any satisfactory results at present from keeping the sorts of seed separate; and it would be too much trouble for many persons who have many other things to attend to. We consider the best rule to follow is to sow your seed from all the largest and best shaped flowers of all colours; but those who have time and inclination might try the different sorts separate: they must not only be sown separate but kept regularly named afterwards until

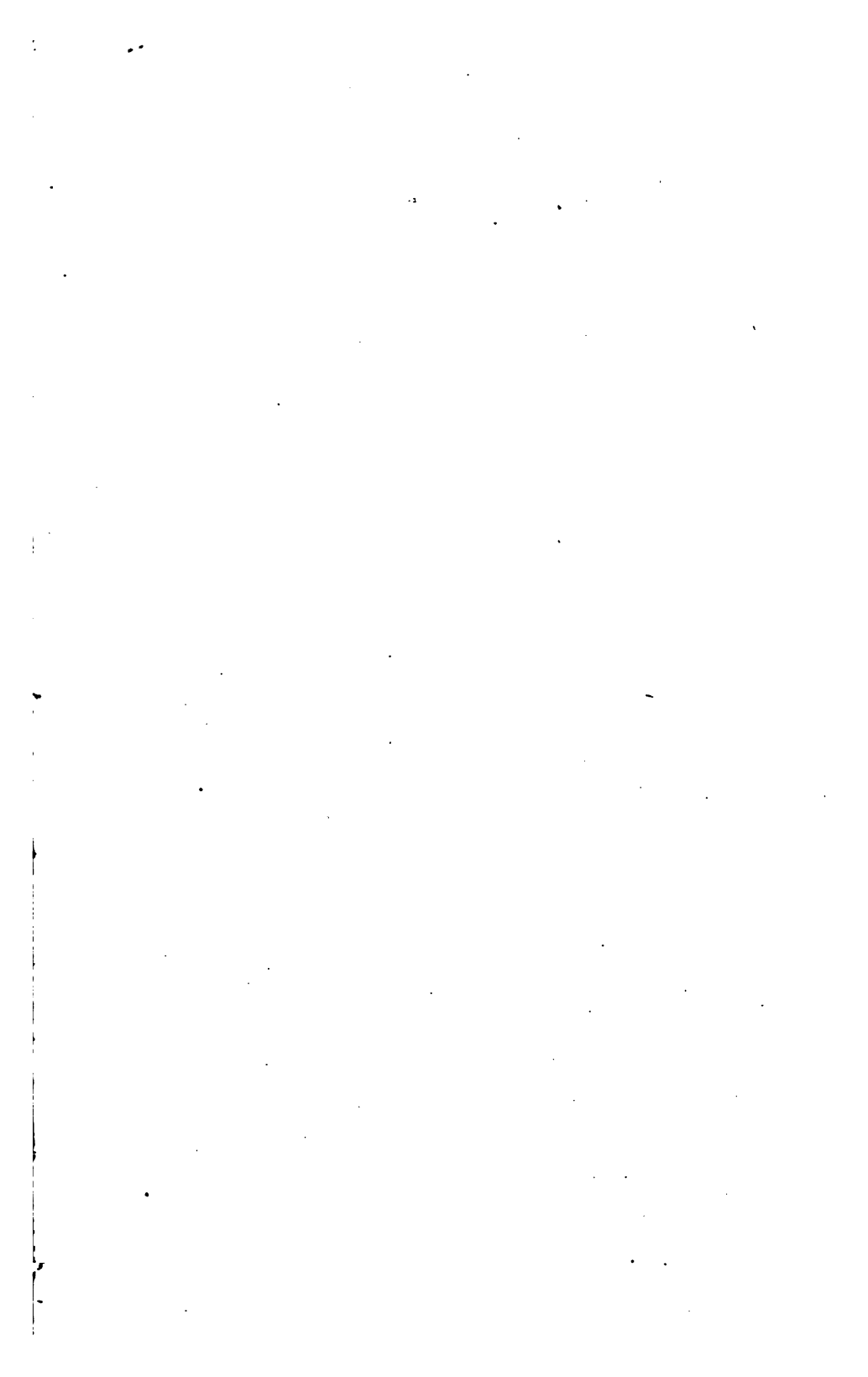
they flower. We will in a short time give a list of some more new and first-rate sorts; but at present it would only increase the anxiety to have them; but as the stock of them is at present very limited and the season late, we must defer it for the present.

There is but little to be done among the Pansies at this season. The young cuttings must be watched carefully to prevent their damping off, and must be kept quite clean from weeds or decayed leaves. If they have been put in under hand glasses, the glasses should be taken off every fine day and examined, for we frequently find the slugs up in the crown of the glass, which would soon do a deal of mischief if not discovered.

In continuation from our last, respecting the selection of flowering plants suitable for the flower garden—The *Lychnis Bungiana*, which has deservedly been in great request this season, the finest specimens we have seen have been grown in the choice collection of ——— Durant, Esq., of Putney Hill, under the able directions of Mr. Spence, who obtained a medal for exhibiting it at the Horticultural Exhibition: a fine specimen three to four feet high, with several spikes of brilliant scarlet flowers. It is doubtful at present whether this splendid variety will prove entirely hardy, but several plants are left out to try it this winter. It will form a fine centre plant for a clump of the *Lychnis* family by themselves; but it will require to be forwarded in heat early in the Spring to be in flower about the same time as the other varieties. The most splendid bed of these we ever saw, was at the gardens of the Earl of Essex, at Cassiobury, near Watford, whose gardens have been kept up with great taste for many years, under Mr. Anderson, a very skilful and intelligent gardener. The clump consisted of four varieties: the one which

formed the centre was *Lychnis Chalcedonica flora pleno alba*, or Double White. Round those were a circle of *L. Chalcedonica*, or Double Scarlet. The next circle was *L. Coronata*, which had a very pretty effect, being of a deep flesh or salmon colour. Although the *L. Coronata* is an old plant, it is not often seen cultivated to that extent which it deserves. It not being entirely hardy requires to be taken up in the Autumn, and potted; and may be increased by cuttings, or dividing the roots, and either kept in a cold frame or pit during the Winter. And lastly, a circle of *L. Fulgens*, a brilliant Scarlet colour, and being of the lowest growth had a very beautiful effect. This variety may be raised by seeds, cuttings, or dividing, and must be taken up and kept in pots in a cold frame or pit during the Winter.







Desdemona Superba.

J. Freeman del.

W. Annon lith. B. Gracechurch st.

VAR. DESDEMONA SUPERBA.

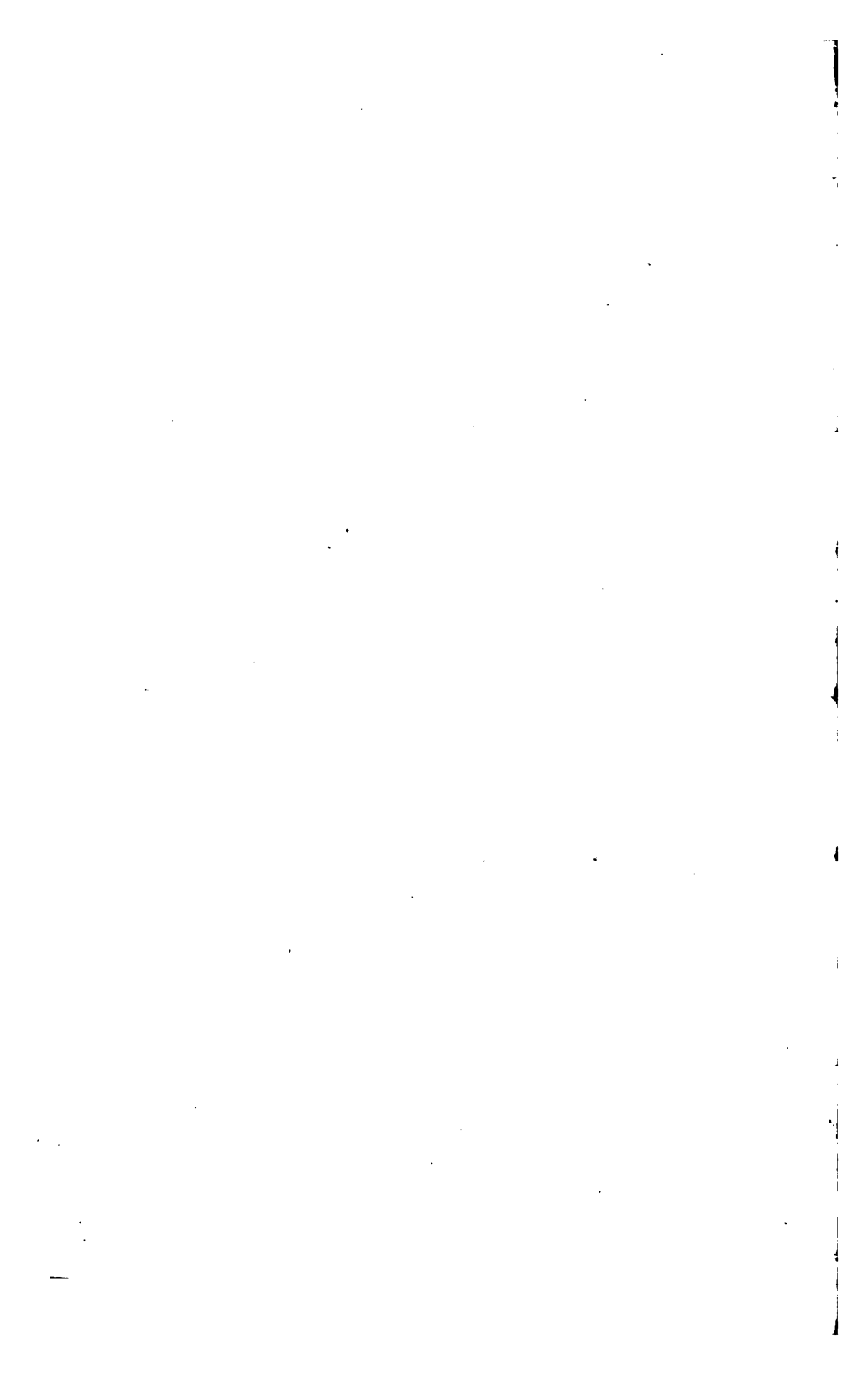
This splendid variety was raised by Mr. T. Thompson, of Iver, in the Autumn of last year, and it is one which will be generally cultivated as soon as it has become plentiful. It is very scarce at present. It has only been let out to a few, where a collection of several of the newest and choicest seedlings of last year's produce, which was ordered when in flower. It appears to possess all the good properties of a first rate show flower; the upper petals are of a fine rich bronzy purple; the ground colour of the lower petals, a fine yellow with a good broad margin round; the pencilling round the eye frequently comes better than in the figure, and it is much more pleasing to find the flowers come better than the figures, which is the case of several. The plant appears to be of a good strong healthy habit, so that we may reasonably expect to see it generally cultivated next season; and it is one which should be in every good collection, and early orders should be given to insure a plant of it, or a great many will be disappointed.

There is but little required to be done this month among the Heartsease, the principal thing is to keep them free from weeds; and those which have been planted lately, would be better for having a small hoe between them to fill up

the holes made in planting, which will make them more firm, and prevent the rain or snow from injuring them; and it would be advisable for those whose ground is infested with the grub, to search round every plant carefully with the finger or small dibber, you will probably find several, which, if not discovered, would destroy several good plants. During the winter, they are generally to be found near the surface, and as soon as they have eaten one nearly through they leave it and go to a fresh one, and would soon destroy a good bed of plants. If the plants have become long and weak, it would be advisable to pinch or cut their tops off, or they are liable to be broken by the wind, or must be pressed down, but it would be better to cut them down, for we never find long slender plants produce fine flowers.

In continuation from our last, respecting a number of plants suitable for the flower garden, as most plants are now in a dormant state, we will point out some of the earliest kinds, leaving it to the different opinion of persons, to make their own selection. Every plant that exhibits the pleasing approach of spring is looked upon with delight, although many of the earliest do not possess that splendour which many later sorts do, but yet they are pleasing to the eye until the more numerous ones present themselves. Among the first is the *Heleborus Niger*, or Christmas Rose, large white flower, grows 6 to 9 inches high. *Heleborus Hymalis* or Winter Aconite, yellow, 3 to 4 inches high; is suitable for an edging but does not continue in flower long enough to become a great favourite. It looks lively in shrubberies as it grows under trees where many things will not grow. *Tussilago Fragrans*, white, very fragrant, suitable for pots or borders in a sheltered situation. The *Scillas* forms a good bed of themselves if required. *S. Peruviana*, blue, 9 to 12 inches. *S. Peruviana*, alba, white, 9 to 12 inches. The

tallest growers should be for the centre. *S. Amæna*, blue, 6 inches. *S. Befolia*, blue and white, 6 inches. *S. Siberica*, dark purple, 6 in. ; these will flower about the same time, from the beginning of March to the end of April. *Erythronium Dens canus*, or Dogs tooth violet, red and white, 6 inches. *Orobis Vernus*, pink and blue, 9 inches. Hardy Perennial, flowers from March to May. *Adonis Vernalis*, yellow, 9 inches. Hardy Per-Polyanthus, many varieties. Scarlet Cowslips look very gay as an edging, or beds. *Anemone Hortensis*, scarlet. A *Coronaria* will flower early or late if required, 6 inches. A *Hepaticus*, double blue and single blue, double red and single red, and single white. *Gentiana Acaulis*, 3 to 4 inches, fine blue, very showy as a border, or in a small clump by themselves. *Silene Pendula*, red, 6 inches, very showy in a bed or as an edging, but to have this flower early it should be sown in August, as it is sufficiently hardy to stand the winter. *Veronica filiformis*, blue, spreads along the ground, suitable to sow on a bank or a wall. *Collinsia Grandiflora*, 9 to 12 inches. Lilac, if required to flower early, should be sown in the Autumn, and replanted 3 inches asunder. *C-Bicolor* 1 ft. requires the same treatment, and both look very gay in the early part of Spring. *Iris Pumilla*, 6 inches, blue, hardy. Per *Arabus Grandiflora*, 6 inches, white, hardy. Per *Aubretia Purpurea*, 6 inches, blue hardy. Per *Alyssum Saxitella*, yellow, 1 ft., hardy. Per-*Fumaria bulbosa*, Lilac, 6 inches. *F. Nobilis*, yellow, 9 inches. *Lobelia Gracilis*, fine blue, 4 to 6 inches. This variety of *Lobelia* is very suitable to form a bed of itself, as it is inclined to spread it soon covers the surface, and continues flowering from March to July. It succeeds best to be sown in Autumn, and replanted 6 inches asunder early in Spring.







The Gem.

J. Freeman del.

W. Annon lith. 12. Gracechurch St.

VAR. THOMSON'S GEM.

This beautiful variety was raised by Mr. T. Thomson, of Iver, in the Autumn of 1836, and the plant being rather weakly did not flower very early. It was exhibited at the Metropolitan Show in Hanover Rooms, last Spring, and obtained the prize for the best seedling. It being of such a delicate and distinct character was much admired by all who saw it, and every cultivator appeared anxious to have it as soon as possible. It most resembles Thomson's Victoria, but is sufficiently distinct to show in the same collection. We should imagine that the Gem, Victoria, and Iver Hero were all from one pod of seed, as we never saw three come more alike altogether. The Gem appears to be a slow grower and of tender habit, which will be the means of keeping it scarce some time, and we should consider it advisable to pot them in 60-pots in the Autumn, and protect them during the Winter. The Gem has been let out during the Autumn, at a high price, to some few who took a number of other new seedlings with it; but it will be very scarce all the next Summer and at a high price. It is not so large as Victoria or Iver Hero, but its delicate appearance and distinct character will ensure it a great many admirers. The Iver Hero has never flowered since it was removed from the seed bed, and the drawing was taken from the first flower. It has never been let out and we are not certain if it is not lost altogether; but as Var. Victoria has surpassed it both in growth and size, with the same beautiful eye, the loss will not be so much felt. We insert this to prevent expense and disappointment, as several of the principal growers round London have been applied to for it.

There is but little required to be done among the Heartsease at present. It would be advisable to turn over

the beds intended to be planted for summer blooming, as the frost would be likely to destroy many insects which go deep in the ground for protection, and the wind and frost will sweeten the mould and will be of great advantage to the growth of the plants. It should be turned up in a ridge, as the frost, sun, and wind has the greater effect upon it. The Heartsease appears to have suffered more since the snow disappeared than they had all the Winter, by the cutting winds which has disfigured them, more than they will recover for some time. It would be advisable to cut them down where they are long in the stem. It will cause them to break out below sooner and make bushy plants, and if they were allowed to remain they would be unsightly for a long time, as the stems would become dry and hollow; and as soon as the weather permits, they should have the mould moved about them as some of them may probably be loosened by the frost: and if any has been kept in pots during the Winter, and have nearly filled their pots with roots, they should be repotted into a size larger pot, which they will probably fill before it is time to turn them out, and they will grow much quicker by often shifting than by being put in larger pots at first, and those which are kept in frames should have all the air possible when the weather is suitable.

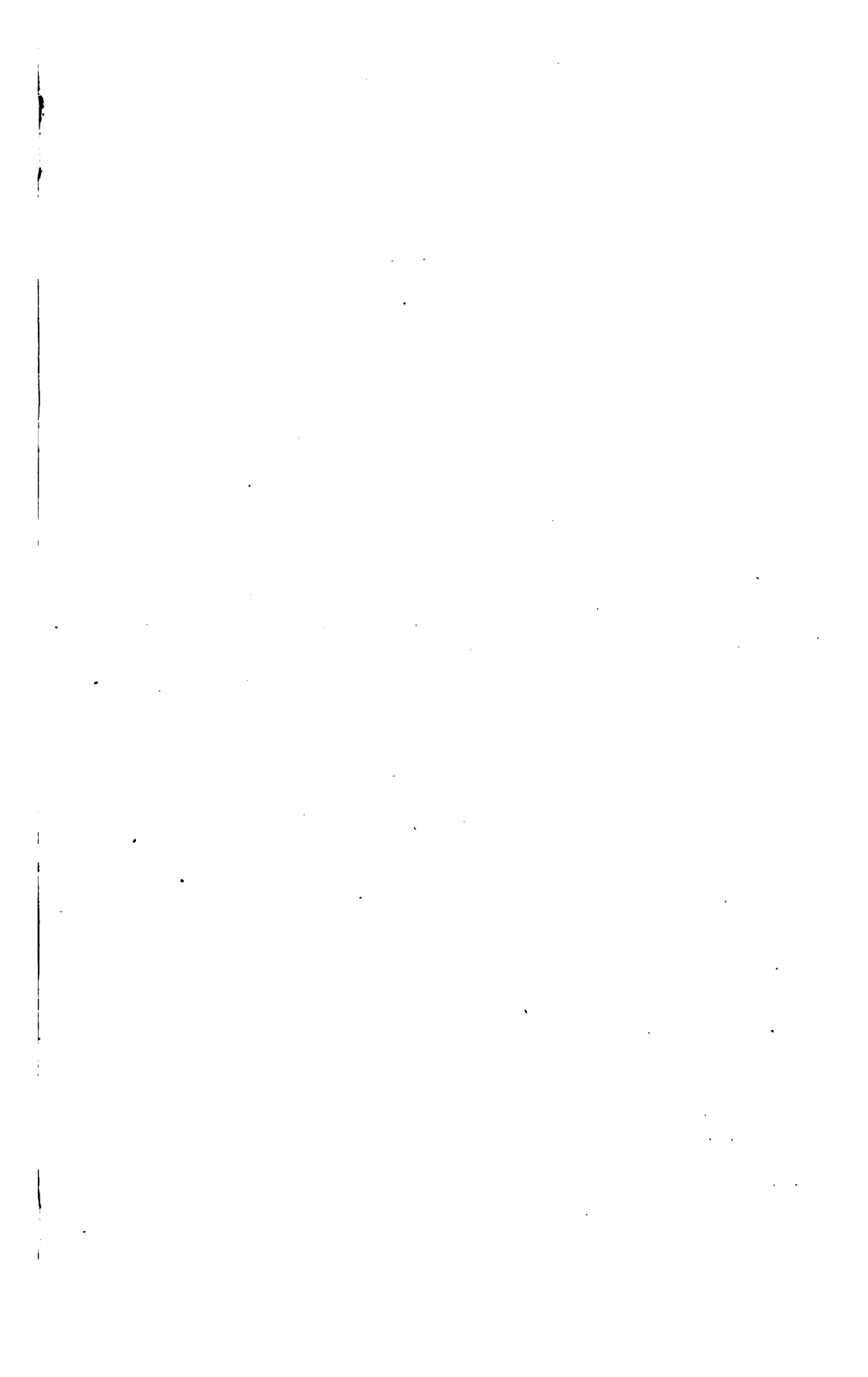
In continuance from our last number, respecting a number of plants suitable for the flower garden, as we mentioned the family of *Lobelia*, their being several beautiful varieties of various shades, which form a beautiful clump of themselves, as they continue a long time in flower. If it is intended to form a clump, the tallest should be selected for the centre. *Lobelia Gigantea* and *L. Tupa* grows 3 feet high, of a dark crimson colour, producing long spikes of flowers 12 to 18 inches long. *L. Fulgens*, fine crimson velvet, 2 to 3 feet. *L. Cardinalis*, scarlet, 2 feet. *L. Splendens*, 12 to 18 inches, fine bright crimson. *L. Ciphilitica*, light blue, 12 to 18 inches, and *L. Gracilis*, dark purple,

would form a fine circle all round, 6 inches from the edge, which if it succeeds, would spread about 12 inches. All the former varieties being half hardy perennials, are generally increased by dividing the roots, and they will seed also of a fine season; but the former is the plan mostly adopted. They require to be taken up in the Autumn and potted, and protected in a frame or pit during the winter. As they do not flower before June, in general, there is time to have an early annual of the bed before the usual time of planting them. Many of the early annuals are very suitable for early flowering, but when they are required early they should be sown in the Autumn, such as the *Collomea*, *Coccinea*, scarlet, 1 foot, generally stands well through the winter without protection. *Clarkia Pulchella*, and *C. Pulchella Alba*, grow 12 to 18 inches high, are suitable to form two separate beds, and will flower very early if sown in Autumn, and is sufficiently hardy to stand the Winter, and come off early enough to receive autumnal flowering sorts. The seven dwarf varieties of *Larkspur* are very suitable for early flowering, and present a very gay appearance, where figures of various angles are cut out and a different colour required in each angle.

The varieties of *Dianthus* are particularly worthy of notice; several being very fragrant and others very showy. Those we consider the most worthy of cultivating are, *Dianthus aggregatus*, a fine double crimson flower with a dark centre. This should be planted in the centre, as it grows and flowers mostly all the summer, from 18 inches to two feet high; is increased by cuttings like other pinks. Plants may be had of Mr. Rogers, Florist, &c., Eaton Square, Pimlico.

The *D. superbus* being the next tallest, and of a lilac colour, forms a pleasing contrast; but the fragrance of this variety is more engaging than its appearance. It produces such a powerful scent of an evening that a person may smell it at a considerable distance. *D. Collinus*, 12 to 18 inches high, rose colour, hardy, per. *D. Hispanicus*, dark

crimson, and various other colours when from seed; but the safest way to obtain a pleasing variety, according to a person's own taste, is to strike them from cuttings from all the approved sorts, and plant them out when sufficiently rooted. The *D. Montanus*, being much lower in growth, is most suitable for the outer row; or *D. Pumella* would look beautiful, if a sufficient quantity could be had, a fine crimson var. grows 6 inches high, is increased by cuttings, and requires protection in winter. *D. Semensis*, or Indian Pink, although only an annual, is well worthy of cultivating. It continues in flower from June until November; and a packet of seed from fine sorts will produce a great many beautiful varieties. Many of the varieties of *Cœnothra* are particularly worth recommending. The *Cœ. Bifron* forms a good bed of itself, grows 18 inches to 2 feet high, of a lilac colour with crimson spots in the centre. If several sorts are required to form a bed of the annual varieties, *Cœ. Bifrons* should form the centre. *Cœ. Tenuifolia*, red with white centre, grows 12 to 18 inches high, should be raised on heat and replanted, half hardy annual. *Cœ. Romansovia*, dark purple, grows 12 to 18 inches high, hardy annual. These will all flower about the same time. *Cœ. Macrocarpa*, hardy perennial, suitable to form a clump of itself, as it spreads all over the surface of the ground, produces a great quantity of large yellow flowers from 3 to 4 inches across, and continues flowering until October, and frequently November; is generally increased by cuttings, and occasionally produces seed. *Cœ. Taraxifolia*, large white flower, suitable to form a clump of itself, or to be intermixed with *Cœ. Macrocarpa*, both being of the same habit of growth. If *Cœ. Taraxifolia* should be intended to form part of a bed with *Cœ. Macrocarpa*, it should be sown on heat early and replanted from pots when large enough; but to have this early in flower, it should be sown in June, and kept in small pots during the winter in a frame or pit, and should be sown annually to keep a succession, as it dies off every Autumn after perfecting its seeds.





Phosphorus.

J. Freeman del.

W. Annan hdb. 12. Gracechurch St.

VAR. PHOSPHORUS.

This unique variety was raised by Mr. T. Thomson, of Iver; and it may truly be said to surpass any thing of the bronze kind we have ever seen. It was raised in the autumn of 1836, and did not flower until rather late. It has been much admired for its singular colour, and it possesses all the good qualities of a first-rate show flower: there has been but very few plants of it let out this last autumn; and the stock of it is at present very limited, which will cause it to be very scarce all this next season. The upper petals of this distinct variety are of a fine rich velvety bronze: it is a good size, with a fine dark eye and good substance, and will no doubt become a general favourite. We can scarcely do justice in the colouring of this flower at the small sum charged for the work.

This being the twenty-fourth number, which was proposed at the commencement to finish the work, as we had not then the slightest idea of being able to produce so many and such fine varieties in so short a time; we are happy to find the number of admirers increase in proportion to the beautiful varieties annually raised; and they have deservedly become a standing show flower all over the country. One of the best proofs we can give of this, is to see the number of ladies and gentlemen waiting to get a glimpse of them. At the Horticultural Exhibition at Chiswick, in May last, the tent appropriated for them was so crowded, that it was impossible for a great number to see them at all.

The varieties of Pansies have increased and improved so much since the commencement of this work, and the number of new and good sorts which are deserving every publicity, and many promises of support, may induce us to commence a new series under some new system. We are very happy to hear it generally remarked, that the figures in this work have been, in general, better executed than in any other work; it will prove a long standing favourite, and will be found worthy a place in every library. We have latterly confined ourselves to none but first-rate flowers; although we may have given offence to some, because we would not figure those which we considered unworthy a place in the work. From the many thousands which are now raised annually, we may reasonably expect this interesting family has not near attained its height.

The loss of this work will be much regretted in the country, as it is looked for with anxiety, to see what new sorts are coming out; as it is well known that all the best sorts are soon to be found in the neighbourhood of London; and as names are no criterion to order from, it is better to place confidence in some good grower to send the new ones as they come out: but the London growers pay dear to procure a few new ones; they frequently purchase many from recommendation which turn out good for nothing. It may be very natural for every one to think their own the prettiest, and they may all be pretty in their way; but now they must possess all the good properties of a first-rate show flower, or they are condemned very soon; and the difficulty increases annually to produce better than we are already in possession of.

This spring's productions are looked upon with unusual anxiety, as every one finds it useless to sow from any but the very best shaped and largest flowers; and those whose

time or patience will not permit them to save their own seed, should purchase some good from a first-rate grower, and not from those who never see any of the flowers, or know when they see a good one. We are sorry to find this unusually severe winter has made great ravages among the Heartsease; some sorts appear much more tender than others. Those appear to have suffered the most which have been left with long spindling shoots, which stood the storm while the snow was on the ground; but the late cutting winds have destroyed a great many, and will probably make it much later in producing good flowers; and we should recommend those who have any of those unsightly tops remaining, to cut them down to where they show a disposition to break out, as they will break out stronger and earlier, and will make snug bushy plants. The frost will probably have loosened some of them, which it would be advisable to press the mould about them, and hoe them through, which will fill in all the holes caused by the frost, worms, &c.

We understand Mr. Rogers intends to have a portion of all his choice sorts planted in Eaton Square Nursery, Pimlico, for the convenience of those whose time will not permit them to go to Battersea; including all the new sorts possible to procure of Mr. Thomson's new seedlings, and several others from private collections, not at present in the trade.

The following are the names of a few of the newest and first-rate sorts, principally of last year's seedlings, raised by Mr. Thomson, many of which are very scarce; and from the unusually severe winter we are afraid many will be lost altogether.

Thomson's Queen Victoria
 ——— Gem
 Corinne
 Desdemona Superba
 Phosphorus
 Coronet
 Paris
 Susannah
 Cæsar
 Zinana
 Nimrod

General Evans
 Tigrada
 Caravan
 Ossian
 Zorab
 King's Alfred
 ——— Premier
 ——— Cupid
 Potter's Chimpanze
 Mountjoy's Flora
 Lane's Countess of Verulam.

These sorts, in addition to those published in the 18th number, September 1st, may be said to comprise the best varieties which we have seen. We have heard of many others, which are represented as good ones, but we must see more of them before we can recommend them. Out of those enumerated may be chosen 50 good ones; but it would be useless to attempt to select fifty which would give satisfaction to every one.

We beg now to offer a few more remarks respecting a variety of plants to adorn the flower garden. As soon as the weather becomes more settled many things may be planted out in beds that are not likely to be injured by the spring frosts; the *Commellina Tuberosa* may be planted out, which will make a showy bed for a long time; although the flower shuts up in dull weather, the beautiful blue colour is very attractive when fully expanded by the sun: it grows about two feet high, and may be increased by dividing the roots or seed. If this is required to be in flower very late, seeds sown in March, will be in flower by July; the root should be taken up in autumn, and preserved from the frost.

The family of *Gladiolus* makes a very showy bed for autumn flowering; *Gladiolus Psitticinus*, might be planted

in March, about two inches below the surface, six or nine inches asunder, if they are in a dormant state; but if they have been potted some time, and are in a growing state, it would be advisable to refrain from planting them a month longer; it is of a yellow colour, pencilled deeply with crimson, grows about two feet high, and produces spikes of flowers twelve to eighteen inches long. *G. Florabundus*, rather scarce at present, of a fine rose colour, a showy plant when in flower, of the same habit, and requires the same treatment as the former; these should be taken up in the autumn, when they show a disposition to go to rest. *G. Byzantinus*, dark crimson colour, quite hardy, grows about eighteen inches. These three varieties make a very showy bed for months. The varieties of *Petunias* and *Niremburgias*, make a splendid bed from May until November, and consist of several shades of colour; the large variety of white should form the centre, as it is the strongest grower. *N. Lilacea* is the next strongest grower. *N. Carnea*, a very distinct variety, raised by Mr. Rogers, forms a fine contrast, being of a blush or flesh colour, with several of the deep red variety; if they were to be pegged down as they continue to grow, they would spread all over a large bed and flower from May until November. The *Helitropium Peruvianum* is very suitable, being both showy and fragrant, and will produce a great number of flowers from May until the frost injures it. *Lantana Selowii* has become a favourite for making a bed. It produces an abundance of fine blue heads of flowers, and continues in bloom from June until October, and frequently later if the weather is mild; it grows from twelve to eighteen inches high; is raised by cuttings in autumn, and kept in small pots during the winter, in the greenhouse. The three varieties of *Stevias* are fine autumn flowering

plants. *Stevia Rosea* grows about eighteen inches to twenty-four inches high, and produces abundance of flowers until November. *S. Purpurea*, nearly the same habit, and requires to be taken up in the autumn, and protected in a frame or pit during the winter. *S. Serrata*, white and very sweet, when in a bed they produce a pleasant smell, more resembling new hay than any thing else ; this variety is very suitable to have in pots in the greenhouse, in the autumn, as flowering plants at that season are rather scarce ; and as many flowering plants are wanted in the country as late as possible, this forms a fine contrast, and produces several large heads of flowers, which make a gay appearance for some time. The *Lopezia Racemosa* is a very showy annual for the autumn ; although this variety has been in the country for many years, it is not so publicly known as it deserves ; the public are indebted to Mr. Rogers, for the preservation of this beautiful variety for years, or probably it would have been lost. The *Lopezia Coronata*, a half hardy annual, produces from June till September, a quantity of small pink flowers, situated on the top of each branch, forming a crown, which the word *Coronata* is derived from, and many fancy there is no difference between the two varieties, because they do not know the difference, and both varieties have been sold out of the same drawer too often ; the flowers are certainly alike, but the habit and character are decidedly different. The *L. Coronata* flowers all the summer, but the *True Racemosa* does not begin to flower until September, and then it comes into bloom all over the plant at once ; the plant grows to the height of two feet before it flowers, and looks very showy. If you can procure the true variety, it should be sown on gentle heat, and when it is grown about two inches high, it should be either potted off into separate